Barriers and Bottlenecks

A case study of the implementation of extension policy for enabling sustainable natural resource management in Queensland, Australia

Greg Leach
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Barriers and Bottlenecks: A case study of the implementation of extension policy for enabling sustainable natural resource management in Queensland, Australia

Greg Leach

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<tr>
<td>AAAC</td>
<td>Australian Association of Agricultural Consultants</td>
</tr>
<tr>
<td>AFFS</td>
<td>Agency for Food and Fibre Sciences (Australian Government)</td>
</tr>
<tr>
<td>AIAST</td>
<td>Australian Institute of Agricultural Science and Technology</td>
</tr>
<tr>
<td>AKIS</td>
<td>Agricultural Knowledge and Innovation System</td>
</tr>
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<td>AL</td>
<td>Action Learning</td>
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<td>AMF</td>
<td>Adaptive Management Framework</td>
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<td>APEN</td>
<td>Australasia–Pacific Extension Network</td>
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<td>BSES</td>
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<td>Commonwealth Environment Research Facility</td>
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<td>Caring For Our Country</td>
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<td>Council of Australian Governments</td>
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<td>Coastal CRC</td>
<td>Cooperative Research Centre for Coastal Zone Management</td>
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<td>CRRIQ</td>
<td>Centre for Rural and Regional Innovation Queensland</td>
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<td>CVCB</td>
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<td>DAFF</td>
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<td>DDG</td>
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<td>NRMSC</td>
<td>Natural Resource Management Steering Committee</td>
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<td>NRW</td>
<td>Queensland Department of Natural Resources and Water</td>
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<td>PAR</td>
<td>Participatory Action Research</td>
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<td>PIRSA</td>
<td>Department of Primary Industries and Resources of South Australia</td>
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<td>PISC</td>
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<td>PMP</td>
<td>Property Management Planning</td>
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<td>PR</td>
<td>Participatory Research</td>
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<td>Participatory Rural Appraisal</td>
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<td>QSIIS</td>
<td>Queensland Spatial Information Infrastructure Strategy</td>
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<td>Rapid Appraisal of Agricultural Knowledge Systems</td>
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<td>Regional Compliance Coordinator</td>
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<td>Research and Development Corporations</td>
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<td>Research, Development and Extension</td>
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<td>Rural Water Use Efficiency Program</td>
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<td>State Extension Leaders Network</td>
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<td>Strategic Information Management</td>
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<td>Spatial Information Resource</td>
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<td>South West Extension Group</td>
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<td>Vocational Education and Training</td>
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<td>VMEF</td>
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Chapter 1: Introduction

This thesis seeks to understand the barriers and bottlenecks which prevent the implementation of extension policy for enabling sustainable natural resource management (NRM) by the Queensland State Government in Australia. The study is an inductive research journey investigating extension’s role and function within the institutional arrangements supporting NRM, and indeed, how the attributes of extension are institutionalised. Primary focus given to organisational interactions within Government and among Government extension stakeholders. Further to this, focus is also placed on community and industry stakeholders concerned with individual and multi-stakeholder decision-making in the quest for sustainable NRM. The learning journey follows an emergent tension around the ‘the role of extension for NRM’ and the ‘institutionalisation of extension in DNR&M (the Queensland Department of Natural Resources and Mines)’. This tension is explored through different episodes over a nine-year period (2000-2009) within DNR&M’s interactions internally in the organisation, with stakeholders in rural and regional Queensland, and in a final phase, with the Australian extension community.

First though, let me provide you, the reader, with some context as to where this is coming from – and what to expect in this thesis.

Are you concerned about the future? I am. Many questions confront us when we contemplate which actions we should take to secure the futures we hope for. Many of these questions are fundamentally anchored in how we ensure the sustainability of the environment and natural resources on which we depend. I think that the relationship between humanity and mother earth is at the centre of our respective quests. How we behave and what we do have a collective impact on the biosphere. But, while I am well aware of this, I rarely think critically about my actions. What is it that enables people to reconsider their perceptions and behaviours, and to reflect on how their activities impact on the natural resources on which we all depend? What influences you to change your practices? Is it your hip pocket and the economic conditions you exist within? Is it the laws and regulations of the powers that be that trigger your response? Do the realities of social phenomena, institutional systems, human traditions and social norms influence you most? Or is it a combination of these and possibly other factors that really drives your actions?

Who am I? I’m an extension practitioner with a considerable background in thinking about and endeavouring to influence practice change for improved NRM. My application of numerous skills and tools from the extension tradition has been focused on working with primary producers in the Australian State of Queensland since 1988 to assist in farm management planning efforts. This experience showed me that influencing practice change is different for every individual and normally involves an adaptive combination of legal, economic, bio-physical and social concerns. Property Management Planning (PMP) was one

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1 For this thesis, this department will be consistently named DNR&M, however, like many government departments in Queensland and around Australia, it has experienced numerous name changes in recent times. From 1996 to 2001, it was the Department of Natural Resources. In 2002, this merged with the Mines Department to form DNR&M. A later merger with the Department of Energy to form NRM&E (2003), and then another change back to DNR&M (2004) and in 2006 to NRW (Natural Resources and Water).
of several large extension programs developed to integrate these concerns and assist the development of a Landcare ethic and the development of sustainable NRM practices. These nationally funded extension programs ceased in 2000, however, as the Decade of Landcare and its associated funding came to an end in Australia, even though Landcare continues to exist in various forms. PMP and other forms of extension concerned with NRM, while they have been repackaged and rolled into various different funding schemes, seem to have struggled ever since.

In 1999, I was invited to work in the Department of Natural Resources and Mines (DNR&M) (later changing its name to Natural Resources and Water or NRW) to help coordinate the development of an extension strategy for the agency. However, despite the enormous efforts of a group of very enthusiastic extension practitioners and managers, this strategy never got off the ground. Considering I had observed and experienced positive outcomes from the delivery of extension services, I was gravely concerned. This outcome propelled me to inquire as to why this was so. I therefore commenced PhD studies alongside my substantive duties. With extension being unceremoniously discontinued in 2001, I continued my research ‘under the radar’ as extension was increasingly becoming a dirty word in DNR&M. Surprisingly, in the ensuing years I found myself having to explain to newly employed colleagues what exactly extension is (or was).

It is very curious that from the year 2000, DNR&M has taken a big swing away from investing in non-coercive policy instruments such as extension for enabling responsible NRM practices and behaviours. It has become increasingly odd to me that senior Government managers believe the chief departmental outcome “Maintenance of the natural resource base” (Queensland Government 2006) can be achieved through policies and legislative frameworks that do not include extension. It seems that NRW’s governance role has moved to strongly favour the use of coercion, through regulating, enforcing and ensuring natural resource users and managers comply with NRM policy.

A review of literature revealed that extension’s role for NRM, as well as its legitimacy and status, is quite problematic, and for good reason. The changing context of extension (which is further explained in Chapter 2) sees that extension is in crisis, even though it appears to continue to be practiced in various ways. Extension lacks legitimacy in NRM circles and as Government focus changes under a neoliberal political context, and the tussle between Federal Coalition and State Labor government prevails, it is quite unclear where ‘public good’ extension funds are being committed. Moreover, it was quite unclear to me what the issues were with the organisational decision-making and negotiation processes that plagued the effective adoption of extension policy and service delivery for NRM.

The search for clarity on the institutionalisation of extension policy for NRM led me to be involved in a number of initiatives. The first (described in Chapter 3) was the failed extension strategy in DNR&M which became the starting point for my engagement in research.

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2 My employer for most of the time I was doing the research for this PhD. I was employed 1999-2007 with Community and Landscape Sciences, in the Natural Resource Sciences Unit, Indooroopilly, Brisbane. See: [http://derm.qld.gov.au](http://derm.qld.gov.au). More recently I joined South East Catchments which is an NRM regional body.

3 There are three levels of government in Australia, and we vote to elect representatives to each of these levels: federal, state or territory and local. With the Coalition in power federally and Labor in power at a state level across the country from 2000 – 2007. A change from the Coalition to Labor Government at the Federal level occurred on 24 November 2007.
Following this, I have conducted investigations into negotiation practices within Queensland agencies and then I have looked at the national scale of the approaches and mechanisms for negotiating extension policy. This thesis reports these initiatives and experiences as an action research journey with seven research episodes, including conceptual intermezzos in which earlier experiences are conceptualised and reflected upon, which then lead in to new initiatives, modes of thinking and theoretical development.

As I have been the initiator and main coordinator of most activities which are the focus of this research, the methodology has been somewhat eclectic combining action learning, action research, participatory action research, participant observation and personal reflection approaches. Research findings are presented in auto-ethnographic accounts of each episode including a composite of reflection-in-action and reflection-on-action. Research methodology is elaborated further in Chapter 4.

**Organisation of the study: The research line**

**Overall line of inquiry and chapter structure**
This research is an inductive investigation into the institutionalisation of NRM extension in the Queensland Department of Natural Resources and Mines. Firstly, a broad background into crises in the Australian extension system is presented. This is followed by some reflections on an extension strategy progressed in DNR&M (1999-2000) as a lead-in to the line of inquiry and research questions of the thesis. The body of the thesis then becomes a range of three separate periods, each consisting of different empirical episodes. Three intermezzos link these periods as emergent conceptual inputs for grounding the theoretical developments in empirical findings and also for adapting the research as the line of inquiry progresses. This is presented in the schematic research structure in Figure 1.1.

**Background and DNR&M’s attempt to tackle the extension crisis**
After introducing the study with a collation of different aspects of the extension crisis in Australia (Chapter 2), DNR&M’s attempt to identify NRM extension through the New Extension Strategy in 1999-2000 and its underpinning theoretical platform is examined (Chapter 3). The New Extension Framework (DNR&M 2000) takes a broad view of NRM extension and claims that everyone in the Department is involved with extension in some way and that ‘NRM extension’ takes much more of an institutional/ multi-stakeholder role than its agricultural counterpart. This strategy development process attempted to discern the different roles of NRM extension to agricultural extension and is outlined toward the end of the chapter. Also described are the actions leading to its non-endorsement by senior DNR&M management in 2001.

**Paradigms, constructivism and memetics – Theory to negotiate NRM extension**
In Chapter 4 an exploration of why the framework may not have been supported in DNR&M is undertaken. Also covered is the proposition that negotiation theory as introduced by Leeuwis (2000) may provide a better basis for working with the strategic agendas of internal as well as external stakeholders. Further to this, a conceptual framework for the study is proposed. Chapter 4 also outlines the research questions along with a theoretical framework, and methodological justification. The Key Research Question identified is: “What processes and approaches do people in natural resource management use to negotiate outcomes given the different values and paradigms in the Department and the community, and in what ways
can these approaches, when reflected against literature, inform, develop and institutionalise Extension in the Department of Natural Resources & Mines?”

Figure 1.1: A road map of the line of inquiry in this research

### Investigating negotiation in DNR&M - Autoethnography

Chapter 5 is a combination of two episodes where negotiation theory and thinking is applied to extension related projects. The first episode explores how as a facilitator I interacted with a
working group in a Natural Resource Information project to decide how we would negotiate with key stakeholders to achieve costs savings in the ‘natural resource information environment’. The second episode considers interactions with compliance staff and others to decide how best to ‘negotiate’ with senior management to develop and secure support for services critical to DNR&M’s compliance function.

Learning from episodes – More theory for multi-party negotiation processes
Chapter 6 (Intermezzo I) draws on learnings from the ASAP NRI and compliance episodes and further delineates the need for investigating and developing a methodology to underpin interventions in the form of facilitated interactive negotiations. Theoretical aspects of organisational change for adaptive environmental management are explored en route to proposing a triple-loop-negotiation model that assists the design, facilitation and conduct of multi-stakeholder negotiation processes.

Investigating negotiation and triple-loop thinking in research episodes
Chapter 7 examines further episodes where triple-loop negotiation is tested as a concept for underpinning planning and implementation of multi-stakeholder interactive decision-making and negotiation processes. The first episode specifically targets the use of negotiation thinking and theory in the development of a collective plan for continuation of the Rural Water Use Efficiency program across Queensland. The second episode connects the New Extension Framework (2000) with negotiations on the role and function of NRM extension in DNR&M.

Learning from episodes – Theory toward a Triple-Loop-Negotiation Model
Drawing on learnings from preceding episodes, Chapter 8 (Intermezzo II) explores current research in the organisation and facilitation of multi-stakeholder negotiation processes. Particular attention is paid to the organisational dimensions of such processes with investigations of organisational learning literature. Triple-loop negotiation is further developed as a means of conceptualising and planning these interactive negotiations. A methodology is proposed for enabling and facilitating triple-loop negotiation processes.

Negotiating a National Extension Framework and Extension Leaders Network
Chapter 9 examines an in-depth action research process where the triple-loop-negotiation approach is employed aiming to influence extension policy nationally. This involves reflective learnings in the participatory design and implementation of national events particularly focused on extension policy spanning 2003-2004. Included in this is the development of a draft National Framework for Extension in Australia (NEFA). Chapter 10 builds on learnings from these events and reflects on the employment of the triple-loop-negotiation approach in the initiation, plans and progressive outcomes of the State Extension Leaders Network (2005+). This network has a strategic role in influencing coordination and collaboration of key institutional stakeholders in the Australian extension system.

Recommendations and next steps for negotiating extension policy
Chapter 11 brings together key learnings for organising and facilitating multi-party (and other) negotiations in the NRM system in Queensland and Australia. It also relates these findings to past and contemporary thinking on extension in effort to inform further development of extension (or NRM extension) in Queensland and indeed Australia. The findings from the research journey are drawn into key conclusions and recommendations for the Department of Natural Resource and Mines (and its successors), for NRM extension, and for organising and facilitating multi-stakeholder negotiations in the NRM extension system.
Chapter 2: Extension in the Australian NRM environment

2.1 Introduction

Natural Resource Management (NRM) is a complex undertaking, considering the multitude of interested parties and the increasingly complex array of decision-making, planning and regulatory apparatus we find ourselves encumbered with. It seems that despite the great number of well-meaning efforts to pursue ‘sustainability’, these are being met by an even greater number of opposing factors. In the lead up to the World Summit for Sustainable Development in Johannesburg 2002, Minu Hemmati (2002:1) made the following observation:

The Earth Summit in Rio in 1992 alerted the world to a large number of pressing environmental and developmental problems and put sustainable development firmly on the agenda of the international community. Many individuals, organizations and institutions have been responding to the challenge of sustainable development. Yet many still seem reluctant to take the need for change seriously. We have a long and difficult way to go if we want to live up to the values and principles of sustainable development and make them a reality. Taking one step beyond the stalemates, which we face in many areas, we will need to learn how to listen to each other, to integrate our views and interests and to come to practical solutions which respect our diversity (Hemmati 2002:1).

In rural and regional Australian terms, Scott-Orr and Banks talk along similar lines about agriculture, NRM and the role of government:

At the start of the 21st century environmental issues have come to dominate Australian agriculture and natural resource management. Sustainable management of our natural resource is the greatest challenge facing our agricultural industries and this must be done while maintaining or improving farm profitability. Facilitating this change and empowering communities is arguably the most valuable service Government can provide. Its role has never been more pertinent than at the present. Communities, especially urban communities via governments, are requiring greater environmental stewardship from land managers. They are demanding solutions to issues such as salinity, water sharing, soil acidification, chemical dependency and native biodiversity preservation or restoration. A new paradigm of engagement between rural and urban communities is needed Scott-Orr and Banks (2002:2).

One relic of the old paradigm of engagement that Scott-Orr and Banks (2002) are advising retreat from is a service-delivery model called extension. Extension has been used as a policy instrument for over a century in Australia, and much longer internationally, for engaging rural and regional stakeholders in a range of ways to promote voluntary change in how resources are managed. On the basis of contributing the development of Australia's prosperous rural commodities through much of the 20th century, it could be argued that historically, extension has successfully targeted agricultural development and the primary industries sector. In the last decade, however, changing economic, ecological and social contexts have seen a broadening emphasis on the management of natural resource systems for sustainable futures. A key issue in Australia is that this broader focus has not given rise to an effective transition
of paradigms enabling agricultural extension to be ‘re-discovered’ (Woods 2005) to include notions of ‘NRM extension’.

The entry point of this thesis is an investigation of the contemporary milieu in which extension is operating in Australia, and the perpetuating crises that seem to embroil it as environmental, social, economic and political landscapes evolve. These investigations began amid struggles taking place within DNR&M (the Queensland Department of Natural Resources and Mines\(^4\)) in 1999 in the quest for identifying the role of extension in the agency’s NRM business\(^5\). Given extension’s long tradition and role in agriculture, to the many DNR&M staff who were relocated from the Department of Primary Industries (DPI), it seemed obvious that this service delivery option, or policy instrument, had a role in enabling responsible behaviour in the broadening sustainability and the NRM agenda. A base assumption was that the majority of stakeholders are one-and-the-same for NRM and agriculture.

An exploration of the crises in the extension environment from a global to a more local scale may help introduce the broadening factors influencing NRM stakeholders in their mission(s) to enable responsible NRM practices and behaviours. The following sections contextualise the issues experienced with extension in Queensland within national\(^6\) and international extension systems.

### 2.2 The crisis in extension today

Over a decade ago, Vanclay and Lawrence (1995) referred to extension in Australia as being in a ‘state of crisis’ brought on by pressures relating to finance, effectiveness, legitimation and theory. Some years later Marsh and Pannell (1999, 2000) reported that departments delivering extension had responded to these driving forces for change in a range of ways. But where did this extension crisis originate?

#### 2.2.1 Extension in Australia

**Historical roots for extension in Australia**

The history of NRM in Australia has been long and eventful with traditional owners shaping the interplay of ecological processes and human interaction over the millennia. Arrival of colonial Europeans in the 1780s saw revolutionary changes to the management of natural resource systems and processes with agriculture quickly becoming the primary land use practice. Initial settlers interpreted the potential of Australia’s resources through European

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\(^4\) For this thesis, this department will be consistently named NR&M, however, like many government departments in Queensland and around Australia, it has experienced numerous name changes in recent times. From 1996 to 2001, it was the Department of Natural Resources. In 2002, this merged with the Mines Department to form NR&M. A later merger with the Department of Energy to form NRM&E (2003), and then another change back to NR&M (2004) and in 2006 to NRW (Natural Resources and Water).

\(^5\) See chapter 2

\(^6\) It is important to note that Australia is a federation and constitutional monarchy. Australians elect state and territory legislatures based on the Westminster tradition, as well as a bicameral Parliament of Australia, which is a hybrid of Westminster practices with the uniquely federalist element of the Australian Senate. Under this system, powers are distributed between a national government (the Commonwealth) and the six States (three Territories) (Australian Government 2010)
frames of understanding and endeavoured to implement resource management practices they were familiar with. Systems of governance and public services for the settlement were also progressed, along with options for use of natural resources and development of primary production methods, all through European paradigms and belief systems (Leach 2003).

The government was charged with the responsibility of delivering educational services to meet the knowledge, skills and adaptation needs of resource managers (predominantly farmers and graziers), and did so through agricultural extension programs. The primary imperative of agricultural extension has been to advance the production of agricultural commodities for State and National revenue as well as the underlying viability and sustainability of agricultural enterprises. In Queensland, for example, extension services were delivered by the DPI, the overseer of agricultural extension programs, projects and professionals since the 1930s (Leach 2003).

In the course of the last two decades, however, the (potential) role of extension has diversified. As well as ongoing political influences, social and economic pressures have been transforming rural and regional communities across Australia. Private agricultural consultants have complemented government personnel in extension in Australia. The former first appeared in Australia in the late 1950s when groups of farmers formed farm management clubs and employed their own advisers. These clubs originated as a result of farmers' dissatisfaction with the services being provided by the government at that time (Patterson 1978). There has been a strong shift in the economy from primary industries to information and knowledge-based services since the 1970s (Cavaye 1999). Within the last decade, the focus of natural resource sustainability efforts delivered by federal and state agencies in rural and regional Australia has broadened from separate industry and sectoral interests targeting agriculture, livestock production, forestry, rangeland management and horticulture to embrace the wider scope of NRM. Separate state agencies of agriculture, primary industries, conservation, land administration and environmental protection continue to exist, however, their business focus is increasingly being reconciled as a particular component of an overarching rural reform agenda.

Consequently, extension has been in transition in rural and regional Australia for well over twenty years.

Extension Transitions
When we investigate the changes in the theory and practice of extension through the past 50 years five stages are evident:

1. Transferring technology (the 1960s) – where diffusion of innovations and transfer of technology (ToT) became accepted models of extension beyond the post-war decade as ever-expanding markets created a large demand for rural commodities.

2. Farming Systems Research (the 1970s) – in response to the failure of ToT, the use of farmer discussion groups informed priorities of research and extension. Farming Systems Research (FSR) was carried out in the farm context, within simulated ‘real’ farming systems. In line with FSR, extension in this era was organised through ‘program planning’ in which purpose and outcomes for extension programs were identified.

3. Systems Thinking (the 1980s) – through the influence of proponents such as Checkland (1981), Röling (1988), Chambers et al. (1989), Bardsley and Phillips (1987) and Hawkesbury University’s systems approach, extension was in great transition through this period. Research and extension became increasingly concerned with landholder needs and perspectives, and how these institutional services would respond to local needs. Extension
was characterised by formal and informal participation, consultation and interactions for defining problems, designing processes and delivering practical solutions. Landcare and Integrated Catchment Management were introduced in this decade and were underpinned by a focus on adult learning and action learning.

4. Pluralist Learning Approaches (the 1990s) – with a growing body of methods, tools, processes (and literature), extension was increasingly able to deliver outcomes in different contexts while meeting diverse client needs. Extension was gaining capacity as a holistic systems discipline with the capacity to meet emergent needs of agricultural stakeholders. Extension supported social learning processes and participation methodologies to target cognitive change as a means to enabling practice change. The emergence of the learning paradigm (Pretty and Chambers 1994) resulted in new learning approaches, participatory methods, institutional settings and changes in extension professionalism. The systematic learning approach, creating learning systems and supporting active learners promoted consensual meaning and understanding (Bawden 1994). Social learning was strongly supported by Australian Government investment in the National Landcare Program as part of the Decade of Landcare 1990-2000 (Australian Government 1997), Landcare encouraged learning approaches in community groups with the aim of improving landholder knowledge and skills so they can make better decisions and improve their own management practices (Australian Government 1995). State Government extension staff, along with Federally funded extension agents, supported the development of Landcare Groups across the nation and facilitated early learning based activities such as farm walks, property management planning workshops and numerous field-days where landholders investigated ‘sustainable’ land management practices. In Queensland, midway through the 1990s, DNR&M was created and difficulties grew regarding extension’s role in connecting with Landcare as well as achieving ‘NRM’ outcomes. Agencies began to struggle with agricultural extension, increasingly resorting to external funding. Industry delivery of extension services grew significantly during this decade (adapted from Fell et al. 1997).

5. Capacity Building and Community Engagement (2000+) – competitive neutrality, user pays and private-public good arguments have seen a rationalisation of extension numbers in State agencies and a shift from them being the primary provider of extension services, to the State moving to coordinate whole-of-government Capacity Building and Community Engagement activities while encouraging other providers and supporting continued increases in private industry delivery of extension services. Voluntary learning approaches through Landcare are now being supplemented by national programs (e.g. NAPSWQ\(^7\), NHT2\(^8\)) which are driving a regionalisation process for NRM decision-making. Extension service delivery for NRM is also increasingly delivered through regional bodies, with large number of extension staff being employed in most regions, however, many argue that the historic extension infrastructure has eroded and the theory-practice base requires considerable development for NRM (van Esch 2004). Extension in agricultural agencies is continued but appears to be reverting back to ToT (Hamilton pers. comm, Howard pers. comm), and State NRM agencies are abandoning non-coercive instruments such as extension and moving to using Capacity Building and Community Engagement methodologies as a means for influencing responsible NRM behaviour through improved landholder recognition of policy, legislation and regulation priorities.

\(^7\) National Action Plan for Salinity and Water Quality
\(^8\) Natural Heritage Trust (Round 2)
Despite this evolution in theory and practice, Frank Vanclay mirrored the concerns of many over a decade ago when he contextualised the ‘extension crisis’. In 1994 he identified that complex problems existed in Australian (farming) landscapes:

1. An environmental crisis of unprecedented proportion;
2. An economic situation in which farmers and the government have limited resources to invest in environmental management; and
3. A government committed to economic rationalism, the result of which is a reduction in agricultural extension services (Vanclay 1994).

He further admonished that continued environmental degradation could be the only outcome of this situation unless there were major changes in government philosophy, balancing extension with deregulation and market-based approaches (Vanclay 1994).

**Current position with extension in Australia**

So extension in Australia is in crisis, or is it? A rich context for issues in the national extension environment is provided by three recent reviews of Australian extension. Murray (1999) conducted an interesting ‘third-party’ assessment of Australian extension. A decade on, his findings still remain very salient. In 2000, Marsh and Pannell (2000) reviewed the relationship between public and private extension in Australia. Coutts et al. (2004) reviewed extension and education projects across Australia from a different angle, in search of ‘what works and why?’ The following is a description of the current state of play in extension based on these reviews and of the extension crisis.

**Extension is a significant activity across rural and regional Australia** in both the public and private sectors involving thousands of extension workers/facilitators and tens of thousands of landholders and community members.

**Extension/education projects cannot be considered in isolation** to what other extension/education projects are occurring in a community, industry or issue context (Coutts et al. 2004:3).

Coutts et al. (2004) establish that extension in Australia continues to involve a large number of people and programs in its many forms. While the Australian Government has become a major funder of extension activities across the country, State Governments have also remained significant players. In quantifying the extension system, Coutts et al. (2004) report that:

**There are in excess of 4000 full-time extension positions across Australia (2748 in the public, or public/community, sectors), or possibly half that number again considering that many extension practitioners work in part-time positions. Most of the public sector extension work and much of the private is based on developing and delivering projects (Coutts et al. 2004:1).**

**Extension models – Popular forms of extension**

Coutts et al. (2004) argue that current extension projects across Australia fall within four clearly defined extension models (as outlined in Coutts and Roberts 2003):

1. **Group facilitation/empowerment model** – which supports the philosophy that facilitative frameworks effectively allow rural industry stakeholders to define their own problems and opportunities and seek avenues to address them. Important to this is ownership and responsibility. An assumption is that those in a specific situation are best able to interpret and act on issues directly concerning them and by encouraging people to work together, more lasting and sustainable solutions will result. Participants develop problem-solving,
planning and reflection skills they can then apply to other situations – human capital, and collectively, increased networking, stronger relationships and group skills develop – or social capital.

2. Programmed learning model – which follows an ‘adult learning’ philosophy in recognising that knowledge already held by participants encourages experiential learning as they engage with new information in a learning event. Significant is a belief that workshops/courses are applicable to a large number of diverse participants, and can be developed, packaged and delivered across different location e.g. regions or States. Accreditation is also important to this model.

3. Technology development model – which supports the philosophy of inclusive technological (including managerial, landscape and environmental) change where focused effort involves all stakeholders in the process. Participation and multiple approaches appear to be fundamental to the development of technologies where industry or community are often involved from a project’s outset. Extension/facilitator skills are critical in addressing technological development issues in a region or industry. Furthermore, skills in addressing social/people issues of understanding, information sharing and motivation, as well as confidence in dealing with contentious issues in ‘safe’ forums, are important for facilitating technological change, acceptance and adoption of new technologies.

4. Information access model – which maintains that for decision-making processes people need different information at different stages, in forms that suit individual needs. Common considerations for successful information access projects are: developing clarity on objectives and stakeholders; providing pathways for individuals to search for specific information needs, and; continuously monitoring and responding to needs and feedback from information users. Information access need not be resource demanding or complex, with many creative options for linking people with relevant information.

Coutts et al. (2004) also identified an Individual consultant/mentor model (see also Coutts and Roberts 2003), and further advise that the omission of this model in the review was a limitation. They suggest that there is much to learn in terms of ‘what works and why’ in the relationship between client and consultant/mentor.

These models form the supports and rungs of a ‘capacity building ladder’ and all were seen to be complementary and necessary for the capacity building process. It was pointed out that stronger collaboration and cooperation between funding bodies could help ensure that the range of effective learning platforms were in place ... projects following particular models could not be looked at in isolation. Best practice needed to flow through to the interactivity of these models. (Coutts et al. 2004:2-3).

A key issue with these models however, is the lack of accepted guidelines on extension program design that enable their effective use an/or combination for achieving desired outcomes (Letts pers.comm.).

Extension delivery support and administration
The purchaser and provider functions in Australian extension systems have been largely separated. Many state departments see potential conflicts-of-interest arise when the same party decides what activities are to be funded (purchaser) and then performs the task (provider) (Murray 1999). The suggestion is that when these functions are separate, purchasers make independent non-biased decisions about where they will get the greatest return on investment. Also, providers become more competitive and innovative. It removes
the perception that providers continued historical funding because they ‘want to’ rather than to deal with stakeholder needs (thereby preventing unjustifiably optimistic views of that activity). Separating purchaser and provider roles, however, has created competition between entities within the same department for limited funding, with project managers ultimately less able to control or prioritise funds. This resulted in the division of extension and applied research into separate sections, as above (Murray 1999). Marsh and Pannell (2000) question the sustainability and efficiency of these arrangements due to the rapid escalation of transaction costs under Funder-Purchaser-Provider systems.

Murray (1999) identified a trend toward cost-recovery, fee-for-service, and privatisation of extension services. Marsh and Pannell (2000) reported that gradual policy change in the 1990s saw state departments subject to processes of review and re-structuring that affected the nature of service provision. According to these authors, governments defended the need for change with calls for greater efficiency and effectiveness of services provided by the public sector, however, the trend towards privatisation seems to have also been influenced by:

a. The declining relative importance of agriculture in the economy;
b. Budget pressures on governments, as well as;
c. The increasing influence of economists’ theories and prescriptions.

Murray (1999) also observed state agencies *frantically* investigating ways of enhancing income or shifting functions to the private sector. He noted little resistance to full-recovery pricing for training sessions or learning aides, but saw few examples of successful fee-for-service options. It seems that landholders facing the decision of paying comparable rates for public agency advice or private consultants typically favour the private sector. As agencies privatise services, mixed results have occurred. Some (e.g. Tasmania) are failing to meet intended outcomes (Murray 1999).

A further downside to privatisation and competitive funding for information provision reported by Marsh and Pannell (2000) were impediments to research capability and information flows. This is manifest through information overload, reduced information sharing between researchers and providers, weakened research-extension feedback links from landholders, and a disconnect between commercial priorities and ‘public-good’ environmental outcomes.

**Public extension service delivery moves from one-on-one to groups**

Murray (1999), Marsh and Pannell (2000) and Coutts et al. (2004) all noted the movement from one-on-one services to group facilitation in public approaches to extension. Emphasis away from individual one-on-one services toward a broader platform reflects increasing environmental and social concerns than the previous ‘production/economic’ focus. In balance with this shift, Coutts et al. (2004) reports strong one-on-one extension continuing in the private sector.

This shift to larger societal concerns and a broader sociological approach sees public extension agencies spending a large amount of time considering the social impacts of collective issues such as land/resource degradation and environmental stewardship. Marsh and Pannell (2000) identified that moves away from top-down approaches, towards group-based extension activities were advantageous. Emphasis on ‘adult learning’ and landholder ‘ownership’ of both problems and solutions were likewise very positive, and facilitated the

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9 My italics. It is interesting that Murray saw moves to secure external funding as ‘frantic’.
10 Note: Changing priorities see some agencies reversing this trend (Hamilton 2004).
entry of rural people other than producers into rural issues (e.g. Landcare). Compared to technical concerns common to other international extension systems, however, it seems that Australian extension systems place far greater importance on group processes (Murray 1999). Marsh and Pannell (2000) caution that the recent emphasis on groups may be excessive, resulting in problems relating to effectiveness of group approaches in all situations, the sustainability of group-based extension and its ability to involve all who need to be involved.

**Public versus private delivery**
State Governments have trended towards a reduction in publicly-supported extension services, with corresponding increases in externally-resourced delivery. A key rationale is that individuals profiting from public advisory services should pay for them and participatory approaches to collectively solving issues and generating funding to support related activities are in the interests of society. Some landholder (stakeholder) groups feel there are advantages associated with not being as dependent on public agencies. Murray (1999) found, however, that some landholders feel that extension (Government) is abdicating its responsibilities. Coutts et al. (2004) observe the private sector operating in the same sphere as public extension, but continuing to expand, providing individual technical advice as well as undertaking interactive group-based activities. In some cases, however, decreases in State support resulted in State Government extension staff reductions below a ‘critical mass’ with many extension programs being largely non-functional. While this has led to strategies for seeking funding through cost-recovery, fee-for-service, and external sources, the requirement of extension projects to align with funder priorities may be inconsistent with State objectives (Murray 1999).

Marsh and Pannell (2000) report that new Government policies have been driving moves to private sector extension delivery rather than traditional public sector provision. While these changes reflect trends towards privatisation of services world-wide, these authors feel they do not address problems of ‘public-good’.

Despite the cutback in services provided by public agencies, they are all still providers of extension services, although the services provided have changed and in some cases they are moving rapidly towards becoming co-ordinators of extension service providers. Most state agencies are still generators of information through their research and have responsibilities for the dissemination of that information. Conflicts now exist between the demands to ‘get information out’ and to recover costs of information seen to have ‘private-good characteristics’ (Marsh and Pannell 2000:8).

On balance, Marsh and Pannell (2000) raise concerns (based on overseas experiences) that State governments may ‘over-privatise’ extension, neglecting important issues not picked up by the private sector.

**Extension practitioner issues**
Extension staff recruitment and retention appears to be an endemic problem in Australia. Extension staff seem to have morale problems with reasons including uncertainty caused by short term funding, relatively low entry-level and senior pay scales, continuous change in organizational direction, and general instability. Arguably, public extension programs are training grounds for industry, where university graduates gain experience and leave after 2 to 5 years for a ‘better’ private sector job. This causes complications with continuity, organisational memory and in delivery of long-term extension programs (e.g. Landcare and
Property Management Planning) (Murray 1999). Also, the move away from one-on-one extension resulted in recognition that learning tools were needed to fill the gap. Extension agencies increasingly aim to produce high-quality, user-friendly learning materials. Primary components of extension programs are often now computer software, brochures and other learning aids (Murray 1999). This further broadens the traditional competencies required by extension practitioners.

**Limited integration of extension with other disciplines**

Historically in Australia extension programs have had a degree of integration with applied research. However, in line with the purchaser-provider separation, there has also been a division of extension and applied research functions. In some States where structural separation has occurred, this has led to decreased communication between research and extension staff, redundancies, and other obstacles to effective interactions. Some research agencies reinvented ways to promote and communicate their research. In contrast with other States, Queensland extension programs have managed to maintain strong linkages between research and extension (Murray 1999).\(^\text{11}\)

Murray (1999) also identified that Australia has limited or non-existent relationships between extension/applied research and universities (at least as compared to US systems). There are few Australian examples of institutional collaborative efforts involving extension or applied research providers and universities. (Note: The Centre for Rural and Regional Innovation in Queensland, and the Tasmanian Institute of Agricultural Research are exceptions)\(^\text{12}\).

**Extension and politics – Compromising value for users**

Murray (1999) reports that the political system’s use of extension (in short priority cycles) has decreased its strategic relevance to ‘clients’, but privatisation is targeted for stabilising this. Australian extension programs are used as political instruments for state departments and include regulatory and other ancillary responsibilities. This arrangement also provides potential for politicians to routinely use extension for their own agendas. This appears (to extension staff) to be at the expense of perceived higher priority activities. Depending on which political party is in power, state agency priorities may change, making medium and long-term priority setting problematic (Murray 1999). Furthermore, barriers were identified to gaining the trust and respect of clients when extension staff are functioning with two, potentially incompatible, duties: educator and regulator. This has fuelled disregard or apathy from landholders and/or industry toward public extension and applied research. As both quantity and quality of services diminish, former clients withdraw their support for continuation of those services. Public extension programs are no longer relevant to their needs. In fact, most extension agencies seem to believe farming should not be viewed differently from other business enterprises and put efforts into helping unsuccessful farmers gracefully exit, rather than support unviable enterprises (Murray 1999).

**Dealing with these extension issues**

Marsh and Pannell (2000) recommend that state governments develop strategies to address problems and challenges (as mentioned above) and specifically address:

- Education, training and professional development (especially in the private sector);

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\(^\text{11}\) An October 2004 interview with a senior manager showed that management issues continue to exist with where to ‘place’ extension. This manager indicated that structural means of integration of these functions as well as operational level integration need to be continually resolved.

\(^\text{12}\) Perhaps Mike Murray did not visit CRRIQ (the Rural Extension Centre at that time).

• Efficiency and sustainability of institutional arrangements (to reduce transaction costs);
• Institutional structures to ensure effective research/extension links (cooperation and coordination in a commercialised environment);
• Facilitating access to extension information (resolve conflicting demands faced by government agencies in a privatised environment), and;
• Funding and delivery of extension (agencies should not confine extension services only to areas with public good characteristics).\textsuperscript{13}

**Learning from these Australian extension reviews**

Comparing these extension reviews prompts some interesting observations. Coutts et al. (2004) presents somewhat different perspectives to the reviews of Murray (1999) and Marsh and Pannell (2000). One reason for the difference is arguably the different definitions of extension. Whereas Murray’s review examined public extension in terms of technology transfer and information delivery methodologies, Marsh and Pannell examined public and private sector activities relating to technology transfer, education, attitude change, human resource development, and dissemination and collection of information. Coutts et al. (2004) undertook their review describing extension in terms of its outcome – capacity building. Rather than examine extension through the eyes of past theory, their review looked at what was actually being funded and how it was being carried out. Coutts et al. (2004) examined extension as a process of engaging with individuals, groups and communities so that people are more able to deal with issues affecting them and opportunities open to them.

A further reason for the differences in these reviews may be due to divergent lines of inquiry. Murray questioned extension practitioners as to how they perceived technology transfer had changed, the strengths or weaknesses of the changes, how changes affected them personally and how they characterise public extension programs. Marsh and Pannell questioned consequences of policy change on the public-private relationship in extension services. Both reviews sought supportive and critical responses. Coutts et al. (2004), though, sought responses as to what works and why, which were logically only supportive.

None of these reviews, however, specifically targeted ‘extension for NRM’. Why? It seems that the difference in definitions and ways of interpreting extension creates a disconnect in the views different people may have about its situation in Australia, or indeed its character. With some proposing extension by one definition is a significant activity across the nation with more extension going on now than ever before (e.g. Coutts 2004), and others claiming extension is in crisis, and none distinguishing NRM extension, it is arguable that the ‘identity’ of extension is at the heart of this crisis. Ultimately at stake is the need and legitimacy of maintaining (or indeed reclaiming) the term ‘extension’, adopting another professional name or dropping the ‘inherited long-term baggage’ completely (O’Leary pers.comm.; Vanclay pers.comm.).

\textsuperscript{13} As explained in Section 2.3.3, such recommendations are not being actioned in a coordinated manner and give rise to some of the reasonings underpinning this research.
2.2.2 Government response to the extension-crisis in Australia
In this section, the politics of extension in Australia and the government handling of the ongoing extension crisis is investigated.

Government’s handling of the extension crisis over recent years
As the above reviews indicated, a reversal of government policy deflecting extension services away from state and federal agencies and/or a review of the commitment to economic rationalism that Vanclay recommended a decade ago have not occurred. The Landcare ‘group-based’ model of extension that was developing as an effective policy option for increasing farmers’ awareness of wider systemic issues (such as NRM) has run into difficulty. Was Landcare a route to effective extension?

The Landcare model
Marsh and Pannell (2000) suggested that the growth of public funding for extension activities directed towards Landcare and human resource development reflects changed philosophy about public-sector extension services provided to Australian landholders. Woodhill (1999) identifies that the landcare model contrasts markedly with past approaches to agricultural extension that generally revolved around a one-on-one model of technology transfer from extension officers to farmers. Landcare, as an alternative extension model, focuses on groups of landholders coming together to discuss and learn about their own problems with agency staff playing a facilitating role or providing technical assistance at the request of the group. The primarily technical focus of extension has often been limited to specific problems and has tended to undervalue farmers’ knowledge (Röling 1989). Extension under the Landcare model demands a very different set of skills from practitioners, particularly capacities for understanding and working with social processes of group facilitation and community development (Carr 1994).

Recently, Andrew Campbell, the inaugural National Landcare Facilitator, claimed, “if Landcare did not exist, we’d have to invent it” (Campbell 2003). In the 15 or so years of Landcare, he believes there has been significant increase in the priority attached to NRM issues in Australia accompanied by widespread attitude change and a growing resolve to pursue sustainability as a mainstream objective rather than a fringe activity. However, even with these (and other) significant improvements, he observes that the condition of the natural resource base has continued to decline (based on National Land and Water Resources Audit findings). It seems that Landcare’s focus on learning and voluntary (non-coercive) change has not been enough to achieve sustainable NRM practices and outcomes in the short term.

Campbell (2003) admonishes that the issues are long-term and intractable, with success only coming with sustained effort and with practical and profitable solutions. Moreover, he recommends that the National Landcare Program should get back to its roots and refocus on sustainable agriculture in a much more directed and targeted manner working with rural industries to help facilitate the development and adoption of more sustainable farming practices (Campbell 2003).

Campbell (2003) has the following recommendation for Landcare and extension:

The National Landcare Program should take the lead in working with all levels of government, industry and non-government organisations to rethink what we have traditionally called extension – the step between research discovery and on-ground or practice change. Ideally, all levels of government should agree on a national framework for extension. This framework should set out their respective roles and responsibilities, and those of catchment...
and regional bodies, local governments, NGOs and industry. Such a framework must deal with funding issues, but also with education, training, troubleshooting and the establishment of at least one world-class centre of excellence.

It would be great to see the Prime Minister and the Premiers working together through the Council of Australian Governments to sort this out, because it underpins most of the challenges we face in learning to manage this vast old continent. Landcare has built a platform of community participation without parallel – a uniquely Australian contribution to the global sustainability toolkit. It is time to refocus on farming practices, the engine room of landscape sustainability, and to work more effectively with both industry and science agencies. This will have a real impact, especially if complemented by a national framework for extension and knowledge management (Campbell 2003:8).

Despite such passion, the Landcare extension delivery-model lies in disrepair as a failed recipe or a mismanaged innovation for effectively linking Government, community groups and the voluntary sector generally. John Childs reflects in 2004 that the Landcare facilitator model was treated so poorly, Government confidence in it suffered greatly as an extension service delivery option. For example, DNR&M withdrew support for funding Landcare facilitators through 2004\textsuperscript{14} and left the Qld Water and Land Carers voluntary group, the Queensland Landcare Foundation and the Regional Groups Collective (amongst others) to coordinate extension delivery for NRM somewhat separately from State Government.

### 2.2.3 NRM responsibility, triple-bottom-line and extension

As admonished by the National NRM Taskforce (1999), sustainable NRM is critical to Australian’s future livelihoods and landscapes:

Managing Australia’s natural resources to maintain healthy ecosystems and healthy rivers is fundamental to the well being of our society and of future generations of Australians. Natural resources are the basis for production of the food we eat and the clothes we wear; they also earn us about $AUD 25 billion a year in exports. The rural environment is the source for water for our cities and towns and the lifeblood of rural industries and our regional communities. It is the habitat for our unique plants and animals and the landscapes that helps to define our image of Australia (NNRMTF, 1999:3).

Campbell (2002) recounts the alarm catalysed when the highest rating radio talk show host in the nation suggested that the proceeds of privatising the national telecommunications company be used to turn northern rivers inland to ‘drought-proof’ the country. Given the high profile broadcast, during a drought, many in the scientific and conservation communities were outraged. A group of eminent scientists met to organise an urgent public statement refuting the proposition. “The Wentworth Group” (named after the hotel they met in) advised (as cited in Campbell 2002):

The problem of Australia’s degrading landscapes is 200 years in the making. Australia cannot be drought-proofed. We need to learn to live with the landscape, not fight against it. We are using more natural resources than the current resource base can sustain. Reversing rivers is a simplistic reaction to a complex set of problems. We have sufficient knowledge now to set a new direction – this will involve a radical change in land use towards practices that can buffer

\textsuperscript{14} As proposed in the “Action Plan for NRM&E support for On-Ground Community NRM Groups and Networks – Transitioning to a New Era”, a Natural Resources and Mines working document.
the highly variable climate that is intrinsic to Australia. Protection and maintenance of what we have is at least ten times cheaper than restoration and repair of lost function. There are at least five specific areas, which we believe require fundamental reform, and we will be preparing a document on these and other solutions to be presented to the Prime Minister and Premiers to set out a path to achieve these reforms:

- **Water rights** – we need to clarify property rights and obligations associated with rights.
- **Landclearing** – we must end broadscale landclearing of remnant native vegetation immediately and assist rural communities with adjustment.
- Changing **taxation and price signals** to pay the full cost of production of food, fibre and water (including the hidden subsidies currently borne by the environment).
- **Restoring environmental flows** to stressed rivers (such as the River Murray).
- **Paying farmers for environmental services** (clean water, fresh air, healthy soils) (The Wentworth Group 2002) (Campbell 2002:183).

These proposed solutions require quite fundamental adaptations in the way that natural resource users and consumers are expected to interact with and pay for the ‘environmental services’ of Australia’s natural resources. They challenge the very way that rural, regional and urban Australians think about, interpret, understand and interact with one another to balance economic, social and environmental changes.

Campbell (2002) writes that most Australians probably feel that the colonial era ended last century, however much of the land use and management is still embedded in systems originating in colonial times. Campbell goes on to suggest that as Australians reflect on their identity and their relationships – with indigenous people, with the British monarchy, with the Asia-Pacific region – a critical relationship, long overdue for redefinition, is that between contemporary Australian society and the landscape they inhabit. He suggests that it is time for modern Australians to work with the Australian landscape, not fight against it (Campbell 2002).

Gray and Lawrence recommend that to propel sustainable relationships between Australian society and the landscape, **triple bottom line** actions are needed. The triple bottom line requires responsive, reflexive, flexible and resilient policy support; holistic approaches to policy need to recognise connections in the economy, the environment and society; blueprints need to be replaced by plural realities; participation of local people is crucial in driving regional economic and technical goals and thereby ensuring ownership of outcomes; centralised planning by experts needs to respect and engage with everyday experiences, needs and priorities of local citizens, and that; the material well-being of people needs to be met, while considering ecological issues (Adapted from Gray and Lawrence 2001).

**Australian agencies move toward responsible triple bottom line actions for NRM**

In triple bottom line terms, extension has historically been heavily weighted toward agricultural development and economic growth, with less emphasis on the environmental and social aspects. With the onset of global, national and local NRM agendas through the 1990s (Rio 1992 and Agenda 21 to Johannesburg 2002 and the World Summit for Sustainable

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15Triple bottom line is a term commonly used by Australian Government to balance economic, social and environmental systems. It focuses agency attention not just on the environmental value they add, but also on economic and social value they add – and destroy. At its narrowest, the term ‘triple bottom line’ is used as a framework for measuring and reporting institutional performance against economic, social and environmental parameters (from Elkington 1980)
Development), the extension system in Australia has had the challenge of adapting to imperatives of the somewhat contrary environmental and social obligations of the NRM reform agenda. Queensland Government, as with other Australian agencies involved with NRM, are challenged with balancing economic, social and environmental influences within an increasingly globalised NRM reform agenda (Pressland pers.comm.). Buhrs and Aplin (1999) suggested that governments in Australia have taken three approaches towards sustainability:

1. A green planning (rational policy) approach;
2. An institutional reform approach; and
3. A social mobilization approach (Buhrs and Aplin 1999 as cited in Oliver 2004)

The green planning approach targets the formulation and implementation of high-level, larger timeframe plans, strategies, and policies (e.g. Ecologically Sustainable Development Strategy 1996). The institutional reform approach targets the development and enforcement of regulations and legislation (e.g. Vegetation Management Act of Queensland 1999) or institutional redesign (e.g. The Condamine Alliance) to produce changes in practices and behaviour. These two approaches take a larger focus on government’s role in the change process. Landcare aligns with the social mobilization approach focusing on action by the community to enable change. In such approaches, initiatives combining local experience and knowledge with community ownership are seen as critical in turning the discourse of sustainability into action (following Buhrs and Aplin 1999).

These approaches to achieving NRM sustainability can be balanced against the major challenges in the name of ‘NRM responsibility’ those concerned with rural and regional Australia face: to continue to be economically productive; to ensure social viability; to produce in an ecologically sustainable manner, and; reform institutional structures so they are responsive to community needs (Gray and Lawrence 2001). This study investigates efforts to reform the role and identity of extension as a service delivery apparatus to support the challenge of triple bottom line NRM responsibility.

**Changing politics of the extension crisis – Tackling NRM**

Childs (2004) identifies two extreme stakeholder positions in the current Australian extension system, to which I add a third:

1. The extension intelligentsia, continuing to invent, evolve, change and present models for how extension can and should happen.
2. People with a concern for and involvement in helping people come to terms with new ideas and information. They keep seeing people resisting change, or not changing. They do not know why and want a recipe to follow to make change happen (Childs 2004).

And in the rapidly developing NRM arena:

3. Political and institutional policy makers with some sense of responsibility for ‘organising’ the environment and service delivery framework in which policy instruments (including extension) should be integrated to effect change – and move to achieve responsible NRM behaviours

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16 For example, over recent years in Queensland there has been a review of State Government extension service delivery (ASAP – see Section 5.1), the institution of a new section of Government titled the Community Engagement Division with linkages to NRM, the development (and non-release) of Strengthening Community-Based Natural Resource Management project report which involved DNR&M staff engaging in dialogue with people involved in NRM groups throughout Queensland, the DNR&M Capacity Building Strategy, etc., amongst a number of other initiatives
All three positions are seeking 'the answer': How to enable people to change. That is the common link. Each thinks we need 'new' models of adoption, of behavioural change – new models of extension (Childs 2004). However, collectively, these and other elements of the extension system lack strategic capacity with the result being that none of these extension contributions (such as Landcare or Property Management Planning17) are either achieving effective and coordinated results nor are they effectively promoting these productive outcomes.

The net result is that State and Commonwealth agencies focused on environment and NRM have, for the most part, abandoned the term and discipline of ‘extension’. It has little recognition as a policy instrument targeting non-coercive intervention processes to enable behaviour change. Introspectively, extension has struggled to re-discover itself. From an agency perspective, while group-based approaches to engagement are being redefined, the traditional one-on-one and facilitated group learning roles extension has long been recognised for are on particularly uncertain ground.

A primary source of the crisis in Australian extension seems to be the ever-changing political climate in which it is supported as a policy instrument (Hamilton pers.comm.). An understanding of several (unnamed) extension stakeholders is that at the Federal Government level, the Liberal/National Coalition has used different forms of leverage through NRM programs and regional bodies (among other things) to achieve policy outcomes. This may minimise the influence of State Governments. It has been suggested that the tensions between State and Commonwealth tiers of government are resulting in agency ‘apparatchiks’ coordinating political manoeuvrings (not unlike conspiracy theory – see Deyo 1978). This is further suggested to be leading restructuring of Labor State Governments across Australia to counter Federal Coalition policy. As observed by a number of practitioners (Hamilton pers.comm., Howard pers.comm., Oliver pers.comm.), extension stakeholders across the nation may actually have a political window of opportunity with the Labor Party in power in all states, to coordinate efforts and funding more effectively within Government. But what is Government’s role in funding extension, and is this investment effective?

2.2.4 Cost-benefit, market failure, the public purse and economic rationalism: The extension funding crisis
Currently extension projects in Australia are funded by state and to a lesser extent federal government, the rural Research and Development Corporations, and other funding bodies

17 Property Management Planning was a highly successful national extension program that received positive evaluations and producer feedback, however it was mostly discontinued when the Commonwealth funding drew to a close. It is now being re-established in line with a more neo-liberal (free market) orientation and reduced Government support. See Chapter 6.
charged with making a difference to the economic, environmental and/or social conditions within rural and regional Australia (Coutts et al. 2004). It appears, however, that there is limited empirical evidence available documenting the net economic benefits of contemporary extension (Coutts pers.comm., Jennings pers.comm.) to support these levels of investment.

**Enter economic rationalism**

Extension’s historic identity and role has mirrored the economic development paradigm prevalent in Australian agriculture and rural development up to the 1980s (Hynes pers.comm.). Over the last decades, however, the transition to economic rationalist and neoliberal policies has seen much change and structural adjustment in rural Australia (Marsh and Pannell 2000). For example, the minimum viable farm size increased significantly and the nature of on-farm work evolved considerably with an increasing need for off-farm income (Vanclay 2004). Also economists’ ideas have strongly influenced changes in the role and delivery of government funded extension. This changing economic perspective has been instrumental in a worldwide trend towards the privatisation of extension services (see Johnson et al. 1989; Rivera and Gustafson 1991; Dancey 1993 in Marsh and Pannell 2000).

**Public support for market failure has shifted rather than diminished**

Mullin et al. (2000) reflect that the main rationale for public sector support of extension has traditionally been based on the ‘public good’ nature of information. Marsh and Pannell (2000) point out that information always has some public good characteristics in terms of reducing uncertainty, ignorance and misinformation and therefore argues that elements of market failure are addressed by all forms of extension. Mullin et al. (2000) support this, but indicate that the key issue is the level at which the market failure constrains the private sector in appropriating sufficient benefits (profits). When the private sector is constrained, then Government has grounds for intervention after weighing up the tractability of the issue and the market failure relative to the cost of intervention.

In this context, Mullin et al. (2000) find little evidence to indicate public resources to extension in Australia have been reduced, or have been switched to research or regulation/compliance over recent decades (1950s – 1990s). They note, however, that the nature of extension activities have changed considerably toward sustainability, but the potential shifts in resources between production and sustainability are difficult to quantify. These authors further suggest that as the demand for environmental services (for NRM sustainability) rises, and there is increasing divergence between the interests of land users (farmers) and the wider community in the management of natural resources, other causes of market failure and related market and non-market responses deserve attention. They see traditional extension and research as only one tool within a package of instruments to help enable change (Mullin et al. 2000).

This adds to Leeuwis’s (2000) claim that the linear thinking behind the long-held idea that knowledge is generated by science, diffused through education and extension, and put into practice by resource users is out of place in the context of sustainable NRM. He argues that when this thinking is coupled with the economic supply and demand metaphor, where knowledge is regarded as a private property and saleable good, produced in a linear fashion,

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18 For a useful account of neoliberal influences on public funding or services such as extension see: Gray and Lawrence 2001

19 A **Public Good** is not excludable (people cannot be prevented from using the good) and not rival (one person’s use of the good does not diminish another person’s enjoyment of it) (following Allen and Kilvington 2002)
from suppliers through transmitters to users, there is a fundamental disconnect with the reality of innovation processes. He admonishes that strict adherence to the supply and demand principle could form an obstacle to interactive (non-linear) innovation processes necessary for sustainability. Therein lies the basis of the extension funding crisis. As extension is moved toward privatisation, the prevailing economic paradigms of rationalism and neoliberalism seem not to be fulfilling public good obligations in Australia. The difficulty for these paradigms to account for the non-linear interactive processes that Leeuwis suggests is a critical issue in the funding and delivery of extension services. Arguably, effective means for influencing the opinions of key economic stakeholders and funders for the effective delivery of NRM extension are lacking.

2.3 **NRM extension ambiguities in Queensland**

In this section issues are identified in the location of extension within different government departments and regional NRM bodies, the divergent imperatives of these different agencies have for extension and the complications caused by divergent understandings of capacity building and community engagement by the Queensland Government.

2.3.1 **Queensland Government approaches to NRM extension**

While the Queensland Government’s Department of Primary Industries and Fisheries historically targeted sustainable use of natural resources, this focus is changing. It has an increasing emphasis on science, innovation and the commercial uptake of new technology in food and fibre industries (DPI&F 2004). DPI&F persist in using extension as a policy instrument and service delivery model based on its 1992 Extension Strategy where the purpose of extension was:

> to improve the international competitiveness of agricultural and fishing industries through using communication and adult education to help these industries identify and implement desired changes (DPI 1992:4).

Therefore, agricultural extension in Queensland continues to be directed toward traditional economic imperatives in the primary production sector (Nielsen pers.comm.). However, in spite of ongoing developments in farming systems approaches and other improvements based on the 1992 strategy, extension’s focus appears to be reverting back to a Transfer of Technology paradigm (Hamilton pers.comm.).

The more recent Natural Resources and Environmental portfolios within the Queensland Government (the Environmental Protection Agency since 1992 and the Department of Natural Resources & Mines since 1996) appear to have taken an institutional reform approach to NRM. DNR&M and EPA have reduced extension services to the point where they are virtually non-existent, despite numerous internal and external calls to redevelop the extension component of the service delivery package. DNR&M, particularly, has undertaken a revolutionary, institutional and cultural change in how it interacts with natural resource users to achieve responsible NRM behaviours. As agencies adapted to work with the NRM reform agenda (Pressland pers.comm.), extension was implicitly transferred (or lost) as many extension staff were realigned from agricultural into the NRM and environmental agencies. It appears that the role of the State is moving to regulate, legislate and enforce in effort to achieve greater change and indeed control over NRM practices.
Many Queensland stakeholders have been increasingly concerned, though, that the impatience of policy makers and administrators has swung the pendulum too far toward the use of coercive instruments. Arguably, this swing has been fuelled by the unproven ability of non-coercive change mechanisms (extension, education, incentives and voluntary approaches) to achieve rapid change. A deeper investigation into the context of this ‘crisis in extension’ that DNR&M staff and others face is required. As one of those questioning the rapid reversion to regulation, I initiated processes within, and external to, DNR&M to inquire into and instigate action to resolve this dilemma. The research in this PhD follows calls by a number of interested parties\textsuperscript{20} to investigate the ‘organisational’ processes needed in DNR&M to re-balance the triple bottom line outcomes for NRM extension.

2.3.2 The need for an NRM extension strategy in DNR&M

In 1996 a change of Government saw an amalgamation of the natural resources section of DPI with the Department of Lands (DoL) to form the Queensland Department of Natural Resources\textsuperscript{21}. As a land administrator (titles and licences), the DoL never instituted an extension function or service, however, many DPI staff involved in the DNR&M merger carried the label ‘extension officer’ in their title and brought with them their experience of the DPI extension approach. They understood and practised ‘agricultural’ extension. Extension programs that operated within the following areas were relocated from DPI into DNR&M: water licensing; woody weed control; state forests; soil conservation and land management; Landcare and integrated catchment management; Farm Water Advisory; Treescare programs; land protection; Waterwatch, and; water use efficiency (Mullins 1999).

By default, extension in the new DNR&M department continued to operate with the philosophy and practice of agricultural extension. However, many DNR&M staff perceived that while extension’s history in agriculture has been over several centuries (Zijp 1992; Penders 1971), the context and role for extension in NRM was quite different. Within DNR&M, mounting concerns of extension officers prompted a recommendation to develop a DNR&M Extension Strategy at the joint DNR&M/DPI Extension Forum in 1996. Then, during 1997-98, several DNR&M staff\textsuperscript{22} accumulated growing evidence that the department needed a more collective understanding of the role of extension in achieving DNR&M’s policy outcomes, and what should constitute extension practice for NRM. There was a growing perception by many staff that a coordinated approach to communicating, learning and working with resource managers is necessary for DNR&M business. Also, concerns were raised that even as a regulator, non-coercive approaches can also achieve successful change and outcomes. Overall, there was growing concern that planning and delivery across existing extension, service delivery and departmental programs was poorly coordinated (Mullins 1999).

DNR&M extension officers and advisory staff particularly highlighted a lack of extension leadership, integrated support and direction. For extension officers especially, confusion prevailed over the recommendations of the Phillipson Review of Advisory Services in

\textsuperscript{20} Some of these parties are mentioned later in this thesis, however many prefer to remain nameless, as the lack of political clemency sees alignment with ‘extension’ as a career limiting pursuit

\textsuperscript{21} DNR&M was originally titled The Department of Natural Resources followed by a succession of name changes (DNR, NRM, DNR&M, NRM&E, DNR&M then NRW). DNR&M is used in this study

\textsuperscript{22} Most of these staff had previous contact with agricultural extension in DPI, education roles in the school systems, or public relations and/or communication roles in the public sector. The staff collecting these concerns and opinions were management and operational DNR&M staff, as well as members of the later instituted Extension Strategy Working Group.
1997/98 that conveyed considerable uncertainty regarding extension’s role in DNR&M. However, the development of a draft extension strategy by the Land Protection Group within the Department highlighted the need to conduct a Department-wide ‘DNR&M Extension Strategy’. Also, a lack of understanding from many sectors, including management and ex-DoL staff who felt extension was not their role or business, meant that a significant inclusive process was required.

The 1999-2001 DNR&M extension strategy process (covered in detail in Chapter 3) was conducted, but despite considerable investment of time and resources across the Department, the outcomes were unclear and served to further confuse the role of extension for NRM. It seemed that the Queensland Cabinet, the new regional NRM arrangements and the recently instituted Community Engagement Division did not have a clear direction re extension.

2.3.3 Fundamental review of Government delivery of NRM extension services in Queensland
The following is a synthesis of the 2001-2002 review conducted in response to the Aligning Services and Priorities (ASAP) process conducted within the Queensland Government. The ASAP process was ultimately a cost-saving exercise aimed at aligning ‘potentially’ overlapping and presumably inefficient government services (in this case extension). The report was to be tabled at a Queensland Cabinet Budget Review Committee (CBRC) meeting in mid June 2003. However, this never occurred. The cost-cutting expectations of the Review, the lack of clear savings from extension and other factors may have lead to the Report being withheld from the CBRC.

National trends influencing Queensland extension services for NRM outcomes
The ASAP Review assessed ‘perceived’ national trends in NRM, extension and Government service delivery. NRM trends viewed to be relevant to Queensland included the devolution of decision-making and the regional investment model in NRM. Also, the demonstration of environmentally responsible practice and whole-of-systems approaches were regarded as significant. Australian extension trends considered relevant to Queensland included the concern of industry and/or community for sustained impact following conclusion of extension project. Also recognised was the concern regarding the continuing dominance of technology transfer models in rural research, development and extension (RD&E), with the resulting development of the concept of ‘capacity building’ in some states. The establishment of the CVCB was seen as growing acknowledgment of capacity building (rather than extension, See Section 2.3.5). Capacity building and the innovation literature (e.g. Macadam et al. 2003 2004) recommended a regional focus with partnerships and collaboration in service design, delivery and assessment alongside extension and service delivery.

Trends in Queensland agencies delivering extension services for NRM outcomes
A key issue underpinning the limited integration of extension effort within Queensland was arguably that extension service models and the role of public sector extension officers vary widely across Government agencies. DPI&F, the Environmental Protection Authority (EPA), and DNR&M only have a small number of shared service delivery arrangements targeting coordinated extension for achieving NRM outcomes. An illustration of this variance is the (somewhat ambiguous) information that DPI&F, EPA and DNR&M provided to the ASAP review:

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1. DNR&M trends relevant to extension – Moves to integrated natural resource management planning on a catchment or landscape basis have seen extension officers providing education and information services to local community groups or stakeholder representatives rather than traditional 'one-on-one' approaches.
   - NRM planning role: Increasing emphasis is being placed on landholders to demonstrate their performance through the preparation of Property Resource Management Plans, Environmental Management Systems and similar records.
   - Compliance/education role: A key priority for DNR&M is building an enhanced capacity to achieve integrated regulatory compliance outcomes underpinned by (recent) vegetation, water and land legislation. In meeting this priority, DNR&M recognises that compliance is not just enforcement but needs to be addressed through a suite of inter-related activities ranging from extension/education and communication through assessment and monitoring to investigation and enforcement. If DNR&M is to maintain its capacity across the broader compliance ambit, it will need to retain and make best use of its extension staff.

2. EPA trends relevant to extension – There is reduced capacity of the extension network within EPA. EPA is experiencing changes in both the number of extension staff employed and the potential demands on these staff.

3. DPI&F trends relevant to extension – Within DPI&F several business groups deliver extension services and they have been shifting from base funding of extension to external funding. High priority ‘public good’ extension activities continue to be provided free to clients and extension activities with a higher component of private benefit have moved to fee-for-service or external funding. Internal resource reallocation has reduced the number of extension officers in AFFS, and increased dependence on non-base funding with reduced flexibility to respond to emergent ‘public good’ activities. This reflects the overall move by Government away from direct delivery of client services to higher levels of fee-for-service (adapted from ASAP 2003).

It appears that while DPI&F continued to use extension within its portfolio, albeit with greater dependence on external funding and fee-for-service, EPA reduced its extension services considerably. The interesting point from DNR&M’s response is that early in 2003 extension was still being recognised, however, late in 2003 the message from the Deputy Director General (see above) was that the Department is no longer involved in extension. These opposing responses were from separate sections of DNR&M, which through later investigations identified divergent views on extension’s use as a non-coercive policy instrument (please see Chapter 7).

2.3.4 Regional NRM Bodies and extension
Australian and State and Territory Governments claim they are aiming to work with people in communities to find local solutions for local problems – hence the above-mentioned trend toward regionalisation. Planning and investment at a regional level is increasingly being seen as a principal delivery mechanism. Regional NRM bodies have been established across Australia in a move to increase multi-stakeholder participation in regional decision-making and governance (Australian Government 2004). Regional NRM bodies are also charged with administering large allocations of Commonwealth funding under the National Action Plan for Salinity and Water Quality (NAP) and the second phase of the Natural Heritage Trust (NHT2) (HRSCHEH 2000). NAP and NHT2 Federal programs are delivered jointly (Anon 2003) with over AUD $1.4 billion allocated over seven years (AFFA 2003).
The NAP is touted as being the first of its kind, intentionally tackling two major natural resource management issues facing Australia's rural industries – ‘regional communities’ and ‘Australia’s unique environment’ (Australian Government 2004). Under the NAP and NHT2, regional investment model, funding is allocated on the basis of a regional NRM plan that incorporates the major natural resource management issues in a regional area. Regional communities, comprising landowners, industries, non-Government organisations, local and State or Territory Governments and other interested parties, participate in developing regional plans, and identifying the most important issues for action and funding. The Commonwealth and States/Territories jointly agree on which activities need to be funded at the regional level. Activities must meet the main objectives of NAP and NHT2. Regional bodies are responsible for implementing Regional Plans through Regional Investment Strategies (ASAP 2003).

The success of NAP and NHT2 is dependent on the involvement of regional communities in developing and implementing their own regional plans. In Queensland, State Government NRM agencies (DPI&F, EPA and DNR&M) have a major role in supporting regional bodies to delivery on-ground NRM outcomes. Regional bodies used NAP and NHT2 funding to employ extension officers as well as to finance government agency and industry extension to achieve these targets (Childs 2004). A Catchment Management Authority senior executive placed this in good perspective when he said over the phone, “We’ve got the cheque-book, and we are a growing force in the extension game” (Colless pers.comm.).

There are differing perspectives. In the wake of essentially government driven dysfunctionality in service delivery for NRM, regional NRM bodies have shown an early predilection for detailed strategy planning, and not progressing towards actions until a predetermined level of confidence and accountability had been achieved (as governed by a complex array of structures). The decision-making and administration systems employed by NAP and NHT2 have not resulted (thus far) in regional bodies getting a clear direction on how to foster behavioural change in order to meet outcome targets. The extension community has certainly not helped their plight by remaining divided, uncertain, hesitant and/or ambivalent in considering regional models and approaches for enabling changes in NRM behaviours and practices (Childs 2004).

2.3.5 Community Engagement (Capacity Building) and extension
The Community Engagement initiative in the Queensland Government, which started in 2001, was a cross-agency attempt to better coordinate interactions with community, particularly for involvement in governance and decision-making. The relationship between Community Engagement and extension, however, did not crystallise. As the community engagement notion was evolving, Cavaye (1999) provided good entry to considering this relationship, but forewarned of the potential to run into difficulties.

Cavaye (1999) recognised that despite its contributions to rural development, some believe top-down extension approaches disempowered people through attempting to address broad issues by focusing on particular industries or issues. Some forms of extension dealt with individuals or small groups encouraging technical solutions to complex issues, rather than taking community-based approaches. These support services for rural people have been described as ‘disabling help’ or for creating ‘a dependency masked by service’ (McKnight 1995). Extension workers may seek to help rural people improve their economic and social circumstances, but the mounting changes facing rural people challenge extension to not only deal with agricultural production and NRM, but to also support rural communities in managing systemic change issues, redefining assets, and getting organised (Cavaye 1999).
The principles and methods of rural community development are similar to current extension. However, it involves “community” – people with a common bond. It is not service delivery, but a process of engagement, rethinking and action. It involves work with a wider range of rural people than traditional “clients”. It does not mean that extension staff work outside their interest, nor lose their technical expertise. Progressing a rural community development role depends on redefining the mission and “real work” of extension. It coincides with developments in information technology, and challenges extension staff to engage rural people in new ways (Cavaye 1999:1).

In a later commissioned paper, Cavaye (2002) acknowledged Queensland Government’s strong moves to community engagement. He admonished, though, that much has yet to be learnt, and flagged the risk of agencies embracing community engagement and a capacity extension role, but with prevailing assumptions and principles related to earlier service delivery and technical assistance models. Genuine engagement (or partnership) requires different assumptions, values and principles to the traditional delivery approach that promotes the syndrome of ‘we are from the government and we are going to engage you’. Without new thinking, government agencies can subtly develop a ‘delivery of community engagement’ mindset (Cavaye 2002).

What is the Queensland Government’s view of community engagement?
The Community Engagement Division (CED) in the Queensland Department of the Premier and Cabinet provides the following definition:

Community engagement refers to the many ways in which governments connect with citizens in the development and implementation of policies, programs and services. Engagement covers a wide variety of government-community connections, ranging from information sharing to community consultation and, in some instances, active participation in government policy development and decision-making processes. Engagement acknowledges the right of citizens to have a say and to get involved in the business of government. Effective community engagement allows government to tap into diverse perspectives and potential solutions to improve the quality of its decisions (CED 2003:2)

This initiative is targeted as a new way for Government to position itself in the next phases of more-inclusive governance. Queensland Government claims that it has adopted an integrated, multi-level approach to community engagement that includes innovations and reforms in Parliament, Executive Government and across all government agencies (CED 2003).

Figure 2.1 is a representation of the key government stakeholders recognised in this approach to governance and their approach to ‘engaging’ with the various stakeholders in Queensland. Premier Peter Beattie (Beattie in CED 2003) observed that greater involvement of citizens and communities in government processes is becoming a standard feature of many democratic systems nationally and internationally. He saw Community Engagement as a key strategy for better communicating with Queenslanders and to enhance their involvement in the State’s democratic processes.
Cavaye (2002) expresses these advances in democratic process as engaged governance and a ‘new politics’ – a new set of relationships and interactions between agencies and communities. He cautions, however, that engaged governance requires the rethinking of culture, structures and assumptions about how the work of government is constructed. The challenge is the transition of the view of government as an “enabler” of vibrant communities rather than a ‘provider’.

**Capacity Building for Community Engagement**

This emerging culture of engaged governance saw, in the late 1990s, the Queensland Public Sector (QPS) formally recognising that its role was moving away from simply ‘providing services’ to identifying needs with the community and collectively meeting them. This shift required changes in approach for both QPS and community, with more involvement and action at community level, building partnerships and a move away from the ‘dependency’ model of the past (Anon 1999).

Trends influencing Government-Community interactions and service delivery include: greater integration of services to reflect user needs rather than administrative convenience; reallocation of responsibilities between the three levels of Government with increased involvement of community; increased partnerships with the non-Government sector in the delivery of services; new technologies are expected to revolutionise the way some services are delivered, and; greater community involvement in the design and evaluation of services (ASAP 2003). Capacity Building is recognised as a particular area of service delivery key to the development of these more collaborative and integrated approaches (Anon 1999).

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24 Another term for Queensland Government
During this period DNR&M was also conducting investigations into the capacity building needs and strategies to further develop effective community engagement approaches. Interestingly, at the same time that an Extension Strategy was progressing (Chapter 3), a parallel project titled ‘Building DNR's Capacity for Community Engagement’ was also being conducted in the department. While members of the two ‘engagement’ processes were each aware of the other’s undertakings, there was minimal collaboration of effort.\(^{25}\) Notwithstanding this, the project resulted in a range of identified skills and knowledge that DNR&M staff require for implementing effective community engagement, and strategies and activities for enhancing DNR&M’s capacity to undertake community engagement programs. The definition of community engagement from the above project was:

A strategy that incorporates a broad range of processes to involve communities of interest in achieving Department of Natural Resources (DNR) outcomes for sustainable integrated resource management. Community engagement covers a broad range of situations within the range of natural resource business (Lazzarini et al. 2000:8).

Following this earlier work, the Regional NRM Taskforce was established within DNR&M in 2002. The taskforce had the express purpose of ‘delivering NRM healthy regional arrangements and regional NRM results by (among other things) facilitating State level community engagement and capacity building strategies (Anon 2002). The establishment of a strategic level Capacity Building Working Group under this, however, was challenged with a prevailing ‘delivery and control’ ethos in DNR&M and the Queensland Government. In the years succeeding the initial plans for instigating a capacity building process within DNR&M and the regional arrangements, there were limited moves to build synergies between staff working with capacity building and stakeholders within the extension system.\(^ {26}\)

**Extension for … Capacity Building for … Community Engagement**

Later inquiries with senior managers from this group (and other related sections in DNR&M) found that capacity building became a second tier need within Regional Bodies as they undertook the regional NRM planning process (2003-04). Senior managers believe that capacity building will be a requirement as these groups move to implementing Regional NRM plans, complete with regional targets. Furthermore, that extension will be a key contributor. Managers also advise that further work on developing concepts and practices for NRM extension are a high priority\(^ {27}\) but for this, dialogue across disciplines will be necessary (e.g. education, extension, capacity building, training). This aligns with suggestions by Aslin and Brown (2002) that a range of tools are needed to support adaptive approaches for engaging stakeholders to address NRM issues.

\(^ {25}\) During this time of significant transition within DNR&M a number of highly inter-related and in some cases interdependent processes and initiatives were being undertaken with little linkage or collaboration between them. In retrospect a large amount of possible synergies were foregone. Example processes were: The New Extension Strategy, The Community Engagement Strategy, The Communication Strategy, The Community Based NRM Project, The Workforce Planning Strategy, The Service Delivery Strategy, and the Compliance Strategy but to name a few. A wider investigation of the ramifications of employing such an approach to establishing the direction of a large public institution is interesting, but certainly beyond the scope of this thesis.

\(^ {26}\) Including the New Extension Framework, APEN, the Rural Extension Centre (CRRiQ) and DPI&F.

\(^ {27}\) e.g. Carie Dellen, Paul Mort, Bill Houseman, Tom Dreschler Darryl Stilson, Travis Ross, Leyton Pepper, Sam Plenty.
Good practice community engagement is not a single practice, but a wide range of practices suited to different situations or purposes – guided by a common set of values, principles and criteria. This raises another important point – community engagement is about processes. These processes may have a number of stages and may last some time. They should not be seen as involving only one step, one decision, one event or one tool (Aslin and Brown 2002:8).

The range of tools Aslin and Brown (2002) recommend to support community engagement are: General public involvement and participation tools; Negotiation and conflict resolution tools; Information, education and extension tools; Rapid and Participatory Rural Appraisal tools; Stakeholder analysis and social profiling tools; Survey and interview tools; Planning and visioning tools; Team building and leadership tools; Participatory Action Research tools; Deliberative democracy tools; Lobbying and campaigning tools, and; Participatory Monitoring and Evaluation tools.

Arguably, over recent decades extension practice has embraced all of the tools listed above (Leeuwis 2004; Coutts 2000 2003; van den Ban and Hawkins 1996; Roberts 2003; Marsh and Pannell 2000; Fulton et al. 2001; Cavaye 1999). Despite this, my observation of Government policy processes in Queensland (and less-so nationally) suggests that there are fundamental issues: people from the extension discipline were not included and in some cases excluded from dialogue and planning for NRM initiatives such as capacity building; the approach for freely including critical disciplines (such as extension, education, training) in the negotiation and development of effective tools for capacity building is unclear; there is no collaborative drive or enthusiasm to enable integration across overlapping disciplines; the advantages/synergies of integrating extension and capacity building discourse, and/or profession are poorly explored, and; the very processes necessary to broker and integrate between these and other (potentially) complementary disciplines are not apparent.

### 2.3.6 An NRM extension crisis?

Issues of the institutional context and positioning of extension in Australia, as described above, raise many questions for DNR&M in Queensland amidst the myriad of NRM stakeholders. The identity and function of extension is an issue as community engagement and capacity building take shape in government, and expectations are placed upon regional bodies and private sector service delivery to help meet the ‘public-good’ requirements for NRM and environmental sustainability. There are disconnects in the implementation of these multi-stakeholder non-coercive mechanisms for facilitating NRM practice change, and moreover with the coercive instruments used by DNR&M. Extension’s role for NRM is unclear. Have we arrived yet again, as with agricultural extension, at a crisis of finance, effectiveness, legitimation and theory? As the identity of extension evolves, how does it maintain and re-define its role in change processes pursuing responsible NRM practices and sustainability? The following section outlines the recognition of the extension crisis from the viewpoint of the extension practitioners themselves in relation to people and NRM decision-making in the Australian landscape.
2.4 Extension practitioners and the NRM extension crisis

2.4.1 APEN recognises extension transition issues

APEN (the Australasia-Pacific Extension Network) is the peak body for extension in Australia, New Zealand and the Pacific region. Since its inception in 1993, APEN has convened several conferences and forums targeting the future of extension in Australia. APEN’s vision and role statements reflect this:

**Vision**: APEN is the peak body for professionals working with people to manage change in agricultural and natural resources management communities

**Role** in contributing to this vision: To provide a platform for networking, professional development and representation of members (APEN 2004:1)

Since the inaugural International Conference in 1993, APEN has endeavoured to move extension out of the ‘agricultural rut’ (James 2001) and broaden its base to include other key disciplines and stakeholders facilitating change in rural and regional Australia. This is challenging and the 2003 APEN National Forum saw that extension continues to re-define itself with ongoing confusion both within and outside the field of extension about what extension is and what it could be.

Many APEN members, particularly the Management Committee, have been growing increasingly concerned about the need to evolve the direction of extension policy to proactively meet the new and emerging needs of stakeholders in rural and regional Australia. APEN recognises a number of issues have been building through the last ten years including (further to those outlined above): seemingly irreversible reduction in publicly funded extension staff in every State; questionable coordination by regional bodies and catchment management authorities for using extension as a delivery mechanism to assist achievement of regional or catchment NRM plans targets; a growing complement of private providers who may not associate with ‘extension’, and; the issue with short term projects that limit the career development of extension staff (Leach 2002).

APEN members have witnessed the impatient and frustrated political responses to ‘slow’ achievement of behaviour change through using voluntary mechanisms such as extension, Landcare, incentives and education. Many members have had to redefine their outlook and job descriptions as most agencies implemented short-term funding processes (e.g. 1-3 years) and a number (NRM agencies particularly) moved to regulation and compliance, aiming to achieve responsible NRM through coercive means. Childs (2004) suggests that it is not surprising that government is implementing regulation, because mistrust and conflict already exist and there is little confidence in an alternative approach. Senior agency management increasingly demonstrates limited belief in extension’s capacity to work with conflictual interactions or to reverse these low levels of trust. He counters, however, that extension has many successful case studies that demonstrate good, simple action learning models supported by skilled extension people. He believes that extension (and APEN) should not continue to endlessly plan, argue about process and procrastinate, but rather put something sensible in place and then learn through action and continuous improvement (Childs 2004).

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29 My italics – The measure of sensible is a key issue. Sensible by whose measure?
A number of APEN members have been trying to follow such advice. A small Extension Policy Development Workshop was coordinated in Sydney on 24 July 2003, which was followed up with a larger National Extension Policy Forum on 21-22 July 2004, and other activities in 2005 (see Chapter 9). The resolution from these workshops was that extension policy needs to be negotiated at a national level amongst agencies and key stakeholders.

### 2.4.2 Considering extension internationally

As presented above, extension in Australia is on uncertain ground. But is Australia the only continent with these problems? Interestingly, some investigation finds that extension also seems to be in a critical position globally.

The world has nearly 1 million agricultural extension personnel. More than 90 per cent of them are in developing countries. Development agencies have poured US$10 billion into public extension programmes over the past five decades. Yet a study published in 2001 by the United Nations’ Food and Agriculture Organisation found that extension services across the developing world are ‘failing’ and ‘moribund’, in ‘disarray or barely functioning at all’ (Feder 2005:1).

On one hand, world demand for food and sustainable production systems and landscapes continues to escalate (Feder et al. 2002), but, on the other, extension programs are being wound back drastically (Röling pers.comm.). World Bank staff members see challenges facing extension are a reflection of current times, but argue that the rural sector must nearly double biological yields on existing lands to meet food needs in the next quarter century. They suggest a sustainable approach to providing extension services — minimal external inputs, a systems orientation, pluralism, and arrangements that take advantage of the best incentives for landholders and extension service providers — will release necessary local knowledge, resources, common sense, and organising ability of rural people (Feder et al. 2002).

Additionally, staff of the Overseas Development Institute see that a focus on whole property enterprises and their natural and human resources is more likely to contribute to sustainable livelihoods and production systems than one which concentrates on single commodities or which separates extension services to different organisations. They suggest that extension objectives can range from the effective transfer of technology to the building up of strong rural organisations that can exert influence over future research and policy agendas, and also take and enforce collective decisions over natural resource management (Garforth and Lawrence 2002). Garforth and Lawrence advise that a shift towards organisational (institutional) development will in turn promote more sustainable agricultural and rural development.

Generically, Leeuwis (2004) suggests that challenges land users and extension practitioners face in the quest for sustainable futures are indeed complex and endemic. Challenges to extension mirror the very pressures and changes that landholders, resource users and farmers are exposed to in their evolving social and natural environment. The difficulties he identifies for these stakeholders include a wide assortment of factors ranging from increasing food production and improving the sustainability of primary production systems (including economic and political factors), through to increasing sustainability, ecosystem health and natural resource management concerns.
Leeuwis (2004) further maintains that extension organisations themselves are the source of many underlying issues with re-positioning of funding arrangements, new communication technologies, and developments in theory putting new pressures on service delivery. Wide ranging institutional challenges he identifies for extension include developing capacities for ‘dealing with collective issues’ where there is an inherent need to manage complexity, conflict and unpredictability. He sees that institutional stakeholders designing and participating in innovation processes require capacities in translating and re-interpreting knowledge and technologies across different social groups rather than disseminating or transferring it. Matching the technical and social dimensions of an innovation requires new things of extension institutions as does the need to cater to diverse farming, NRM and livelihood strategies. Moreover, he provides that extension organisations (and institutional arrangements) need to continuously learn and adapt to add value in times of discontinuous change. A key to this will be the recognition of changing professional identities whereas the context, aims and outcomes of change arenas rapidly evolve, the range of professionals in the same or overlapping space with extension is also increasing (adapted from Leeuwis 2004).

2.5 Summary

In Queensland, in Australia, and internationally, it appears that the context of extension is irrevocably changing as the pace of change itself continues to hasten. As this chapter was written primarily in 2003-04, it seemed that the crises in extension were becoming endemic and quite intractable. As the context for extension broadened to include NRM and wider environmental concerns, it appeared that the institutional and policy stakeholders for agricultural extension were not predisposed to meet these new challenges. It could be argued that as a discipline intrinsically dealing with change, extension practitioners should have the capacity (or be taking some action) to remain responsive to these challenges. This does not appear to be occurring (at least in a coordinated manner), and despite the need for extension to reinvent itself in view of new circumstances and increasing focus on NRM and sustainability, it seems that the wider extension system does not respond easily to such challenges. Why is this so? Subsequent chapters will improve our understanding of different dimensions of this issue.
Chapter 3: Extension’s lack-of-fit in Queensland’s Department for Natural Resources

Many issues today cannot be addressed or resolved by a single set of governmental or other decision-makers but require cooperation between many different actors and stakeholders. Such issues will be incapable of successful resolution unless all parties are fully involved in working out the solutions, their implementation and the monitoring of results (Rukato and Osborn, 2001 in WSSD 2002).

3.1 New Extension: The research entry-point

The NRM extension crisis presented in Chapter 2 may be further illustrated by taking a retrospective look at issues encountered in a two-year extension strategy process conducted in DNR&M, Queensland’s lead agency for natural resource management. This was an attempt by extension practitioners and other concerned parties within DNR&M to institutionalise extension and it’s Holy Grail, ‘capacity building’ in individuals and communities (Coutts and Roberts 2003). The strategy development process and its (non)outcomes were the genesis of this research.

The aim of the strategy was to identify the context of extension for NRM in Queensland (with DNR&M being the ‘new’ State authority and service deliverer for NRM at that time) and to progress the institutional setting in which ‘NRM extension’ was being positioned in the year 2000, as well as the obstacles to effective delivery within this system. The strategy process is investigated below. Following this is a brief synopsis of the ‘non-endorsement’ of the strategy, which exposes the lack of effective ‘institutional’ policies and capacities for progressing NRM extension. (Note: While this chapter serves as a contextual entry-point to the thesis it contains empirical information that was collected in line with the research methodology and principles highlighted in Chapter 4).

3.2 Conducting DNR&M’s ‘New Extension’ Strategy 1999-2000

Section 3.2.1 outlines the approach taken to developing the strategy and sections 3.2.2 to 3.2.6 introduce issues encountered in the implementation phase.

3.2.1 Identifying the role of extension in natural resource management: for DNR&M the agency and NRM business

DNR&M has, like many Government departments, seen a colourful series of name changes, restructures, amalgamations and relocations over a relatively short period of time. Given the fact that the department was initially formed in 1996, its organisational history has been quite turbulent. Over a twelve month period across 1999-2000, contemporary participatory approaches were used to develop an Extension Strategy in DNR&M. Whole systems

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30 Note: This strategy process had actually been underway for some time before serious consideration of the context and the role and identity of NRM extension took place (see the Chapter 1).

approaches; integrated planning and action; participatory and interdisciplinary team approaches, and; development of strategic alliances were key aspects of the praxiology employed by a working group with other institutional and external stakeholders. Considerable effort and resources were invested in developing the New Extension Framework and the groundwork preceding its implementation in the department. Support from the highest levels in the department from its inception through its different phases provided an ideal opportunity for identifying the role and function of extension for NRM and the department.

Time showed, however, that the task of introducing extension into DNR&M was not without significant opposition. Even in early interactions some exhibited scepticism and a school of thought that there was no place for extension in DNR&M. Many rejected the possibility of new or different ways to approach departmental dealings with stakeholders. Despite this opposition, a number of concerned staff (extension practitioners and supporters) committed efforts to ensuring a successful outcome, and to turn these negative opinions around. While the New Extension Framework was the output, the outcome was surprising.

Growing issues for extension (such as presented in Chapter 2) culminated late in 1998 with ‘concerned parties’ seeking resolution through a funded project. The Director General endorsed the development of an Extension Strategy with the brief being to evolve extension in DNR&M, respond to community needs, support the Department's Mission and demonstrate world's best practice in extension (Fenwick 1989). This was in line with recommendations from the Phillipson Review (introduced in Chapter 2). It involved establishing a Steering Committee, Reference and Working Groups to identify extension’s role in DNR&M.

**Extension strategy begins**

In November 1998, Regional Service Directors across Queensland were asked to nominate representatives to join a Steering Committee and Working Group to progress an extension strategy in DNR&M. The Director General sent letters to his counterparts in DPI&F, Department of Environment and Heritage, Department of Local Government and Planning, and the Queensland Farmers Federation seeking nominations for a Steering Committee. Nominated representatives then participated in a workshop in January 1999 to acknowledge recent extension work done by departmental officers and clarify issues to be considered in the development of a DNR&M extension strategy.

The Extension Strategy Working Group (ESWG) was then gathered together by Mary, who sought advice liaising with managers to determine who might be effective representatives to assist with the strategy. Regional staff were identified that could provide a ‘grounded’ focus aligned with local and regional needs and interests. Business groups with identifiable extension roles in DNR&M were also targeted. DoL representatives were invited to participate, however, their initial nomination for the working group was not followed up with managerial support and committed resources. The ESWG was formed in June 1999.

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32 Mary was a Principal Natural Resource Officer in the Community Education and Extension Support group at NRSc, Indooroopilly. Mary assumed the role of coordinator for the Extension Strategy.
The Extension Strategy Working Group

<table>
<thead>
<tr>
<th>Name</th>
<th>Position and Background</th>
</tr>
</thead>
<tbody>
<tr>
<td>Mary</td>
<td>Member of Community Education and Extension Support Group, Brisbane. Ex teacher, environmental post-graduate MSc. Mary is a strong networker and has many friends and extensive professional networks amongst operational and policy staff in Brisbane.</td>
</tr>
<tr>
<td>Bob</td>
<td>Senior Project Officer, Geographical Information Support Systems and Land Conservationist, central Queensland. Ex soil conservation extension officer with long history of 1-on-1 contact with producers backed up with up with group-based focus of newer extension projects such as Futureprofit in DPI and other Land Resource Management projects</td>
</tr>
<tr>
<td>Cyril</td>
<td>Senior Forestry extension officer, central Queensland. Background in group based extension and working with industry</td>
</tr>
<tr>
<td>Gary</td>
<td>Senior Project Officer Community Partnerships, south-west Queensland. Ex farmer with history of Landcare work with group based extension approach with a large range of regional extension projects</td>
</tr>
<tr>
<td>Nadia</td>
<td>Waterwatch Coordinator, north Queensland. Ex Fisheries officer with education/teaching background</td>
</tr>
<tr>
<td>Pete</td>
<td>Senior Regional Vegetation Management Planning Officer, south-east Queensland. Ex soil conservation extension officer with long history of 1-on-1 contact with producers backed up with up with group-based focus of newer extension projects such as Futureprofit in DPI</td>
</tr>
<tr>
<td>Liza</td>
<td>Land Protection Communication. Community communication background</td>
</tr>
<tr>
<td>Sally</td>
<td>Senior Extension Manager estranged from the city office who was previously a Director in DNR&amp;M. Farming background and Hawkesbury education in extension. Sally has extensive networks amongst higher policy and management staff in Brisbane.</td>
</tr>
<tr>
<td>Greg (me)</td>
<td>Extension Strategy Support Officer, Brisbane. Ex soil conservation extension officer with long history of 1-on-1 contact with producers backed up with up with group-based focus of newer extension projects such as Futureprofit in DPI</td>
</tr>
</tbody>
</table>

Table 3.1: Members of the Extension Strategy Working Group in DNR&M 1999-2000

The development process

Formalising the working group and structural arrangements – The ESWG’s first meeting took place in March 1999. The group proposed from the outset that the Phillipson Review’s structure of stakeholders and reporting relationships, including DNR&M staff at operational, middle-management and executive management levels, as well as external stakeholders, was essential to progress the extension strategy. From this early stage the ESWG identified that it would need to closely follow and grapple with various organisational manoeuvrings within DNR&M. The extension strategy process became an exercise in adaptive management. By July 1999 the ESWG had negotiated the structural arrangements and ‘Terms of Reference’ for developing the Extension Strategy. The team crystallised what it saw as the best model to meet these terms, defining its role and function as a facilitator, clearing-house and synthesiser of information and perspectives on NRM extension. An Extension Strategy Board (ESB) with the power to endorse ESWG actions was convened to oversee the strategy development process. The ESWG reported to the ESB, which in turn, managed upwards to the Director.

33 Pseudonyms are used rather than actual names
General and the Executive Management Group. Regional Extension Teams were convened for regional input and for developing an accepted and shared vision on extension for DNR&M. Figure 3.1 shows this model, including major contributors and information sources.

Figure 3.1: The DNR&M Extension Strategy development structure

Key links were targeted between the State Team (the ESWG), Extension Owners (the ESB) and Regional Teams (particularly the South and Central West Extension Groups). The ESWG was essentially the driver within this structure. Regional Teams were key collaborators and the Extension Owners had oversight of the process and possessed the power to continue, increase, decrease or cease DNR&M contributions. While this structure represented a very small portion of DNR&M, a department with over 4000 staff, those involved committed considerable effort and resources over two years in an attempt to identify and position extension in the department. Respective groups met on numerous occasions (e.g. ESWG 15+, ESB 4, Regional Teams 8+). The ESWG attempted to pre-think the roles of extension principles and practice in the diversity, cross-disciplinarity and complexity of DNR&M’s business groups. The group examined strategies in the DNR&M Corporate Plan 1999-2004, and deliberated over the wide range of paradigms different departmental stakeholders exhibit for NRM business. The ESWG’s quest was to demonstrate the critical role of extension in achieving the vision and mission for the department as outlined in Table 3.2.

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34 DNR = DNR&M, DDG = Deputy Director General; ED = Executive Director; NRS = Natural Resource Sciences; DM = District Manager
While considerable effort went into preparing these strategies, the ESWG remained uncertain of the number of senior staff and others who reviewed or shared these assertions. Actions demonstrated a reluctance to be involved with a group of extension radicals. Perhaps this was due to the disconnect between the impassioned ‘extension group’ advocating new approaches and the status quo of conventional practice.

### Five-Year Strategies for the DNR&M Corporate Plan 1999-2004

<table>
<thead>
<tr>
<th>Critical Extension Skills and processes to achieve the strategy outcomes</th>
</tr>
</thead>
<tbody>
<tr>
<td>Work in partnership with Queensland communities to plan, manage and monitor the State’s natural resources.</td>
</tr>
<tr>
<td>• Networking</td>
</tr>
<tr>
<td>• Building and maintaining relationships/partnerships</td>
</tr>
<tr>
<td>• Facilitate planning activities</td>
</tr>
<tr>
<td>• Creating/facilitating learning opportunities</td>
</tr>
<tr>
<td>• Facilitate the development and implementation of regional/catchment strategic NRM plans</td>
</tr>
<tr>
<td>• Encourage participative monitoring and evaluation</td>
</tr>
<tr>
<td>Implement appropriate arrangements for the fair, equitable, transparent, secure and sustainable access to the State’s natural resources</td>
</tr>
<tr>
<td>• Active listening and communication methods</td>
</tr>
<tr>
<td>• Clear and transparent negotiation/consultation</td>
</tr>
<tr>
<td>• Community development</td>
</tr>
<tr>
<td>• Participative education and awareness programs</td>
</tr>
<tr>
<td>• Facilitate the joint management and share responsibility</td>
</tr>
<tr>
<td>Develop and put in place service delivery arrangements that are responsive to the needs of all our clients</td>
</tr>
<tr>
<td>• Consultation/negotiation to align client needs with departmental goals and programs</td>
</tr>
<tr>
<td>• Networking/building and maintaining relationships</td>
</tr>
<tr>
<td>• Participatory planning processes</td>
</tr>
<tr>
<td>• Open door communication</td>
</tr>
<tr>
<td>Contribute to the economic prosperity of Queensland through enhanced land services and related tenure systems, sustainable water infrastructure and ready access to reliable information</td>
</tr>
<tr>
<td>• Information development and delivery</td>
</tr>
<tr>
<td>• Participatory planning for information dissemination</td>
</tr>
<tr>
<td>• Consultation with clients for use of new systems and technologies</td>
</tr>
<tr>
<td>Improve the sustainability of water use through new institutional arrangements, cost-effective water pricing, water allocation, trading of entitlements whilst ensuring environmental, social and economic benefits are realised</td>
</tr>
<tr>
<td>• Community development</td>
</tr>
<tr>
<td>• Participative planning</td>
</tr>
<tr>
<td>• Facilitate the joint management and responsibility</td>
</tr>
<tr>
<td>We aim to develop and maintain effective communication links with all our stakeholders</td>
</tr>
<tr>
<td>• Consultation/negotiation with key client groups</td>
</tr>
<tr>
<td>• Networking</td>
</tr>
<tr>
<td>• Building and maintaining relationships and partnerships</td>
</tr>
</tbody>
</table>

Table 3.2: Proposed function of extension in supporting achievement of DNR&M Business Strategies

The ESWG further proposed that the function, skills and processes of extension critically underpin several strategies for each of the output areas in the 1999-2004 DNR&M Corporate Plan as outlined below:
<table>
<thead>
<tr>
<th>Program</th>
<th>Strategies underpinned by Extension</th>
</tr>
</thead>
<tbody>
<tr>
<td>Land Services</td>
<td>Effective delivery of products and services within client standards</td>
</tr>
<tr>
<td></td>
<td>Enhancing the capacity of clients and staff to access and deliver land services and participate in decision making</td>
</tr>
<tr>
<td>Natural Resource Management</td>
<td>Increase community based decision making and environmental outcomes through management plans, catchment plans and regional plans</td>
</tr>
<tr>
<td></td>
<td>Use a regional focus to increase service integration</td>
</tr>
<tr>
<td></td>
<td>Increase emphasis on monitoring, with increased participation of owners and users</td>
</tr>
<tr>
<td></td>
<td>Further develop private sector opportunities in the areas of land and water management plans, recreation services and resources information</td>
</tr>
<tr>
<td>Water Resource Development</td>
<td>Implement the Queensland Government’s water reform agenda including pricing policy and legislation reform</td>
</tr>
<tr>
<td></td>
<td>Improve water use efficiency and reduce water losses in water supply/distribution infrastructure</td>
</tr>
<tr>
<td></td>
<td>Develop a strategy to improve recycling</td>
</tr>
<tr>
<td></td>
<td>Facilitate and support collaborative regional strategic studies for resource and infrastructure requirements in priority Queensland regions</td>
</tr>
<tr>
<td>Commercial Water Services</td>
<td>Develop and maintain a good corporate citizen program to support local communities</td>
</tr>
<tr>
<td></td>
<td>Deliver valued services to agreed standards and develop new business to meet commercial demands</td>
</tr>
<tr>
<td></td>
<td>Investigate innovative solutions and improve current practices</td>
</tr>
<tr>
<td>Information Integration</td>
<td>Improve the capacity of clients to integrate natural resource and land administration information and data</td>
</tr>
<tr>
<td>Land Court and Tribunal Services</td>
<td>Provide the court with a more proactive role in dispute resolution, including a Court-supervised mediation process</td>
</tr>
<tr>
<td></td>
<td>Empower the Land Tribunals to continue holding Directions Hearings for all land claims received and communicate with claimants and other parties to monitor their readiness to proceed to a hearing</td>
</tr>
</tbody>
</table>

Table 3.3: Proposed extension roles in DNR&M Business/program areas

3.2.2 Extension Strategy Working Group: Team functioning
As a team, the ESWG functioned very cohesively and each member’s high levels of experience and confidence in communication and working in participatory processes supported and enabled rich and open discussion and debate. Leadership was remarkably flat (egalitarian) and while Sally and Mary were senior in rank, they emphasised working as equals in a collegiate manner, and used levels of seniority strategically to gather support or seek senior management input at planned stages throughout the strategy development process. The ESWG physically met eight times to plan and iteratively implement actions. Planning was driven by the group and not imposed by management. Decision-making was very inclusive and dynamic. Frequently, and explicitly, the group emphasised equality and openness to inspire confidence and enable unfettered contributions from all members.

Social Dynamic
ESWG meetings usually involved two or three nights away for regional members, and on three occasions the ESWG came together for a week at a time (five working days). Most meetings were held at commercial venues away from workplace distractions. The ESWG members developed a close working relationship and had a high level of general familiarity.

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35 These were organised meetings between three and five days each. Numerous other non-organised meetings, including data gathering activities also occurred.
with each other. The ESWG focused a significant amount of time on the social dimensions of working together effectively, and upon the characteristics of individual team members. Members had high familiarity with their personal styles and preferences (with wide exposure to accepted tools such as Myers Briggs\textsuperscript{36} and Belbin’s Team Roles\textsuperscript{37}) and felt that they had an adequate level of self-awareness for teamwork.

*Team Backgrounds in Extension*

The educational level of team members in the more recognised aspects of the extension discipline was quite low, with only myself having formal qualifications in this area. This was an advantage for allowing the team to maintain an innovative stance, and perhaps for taking liberty with developing new extension theory for NRM. It was a disadvantage due to the lack of acceptance and support by DNR&M management, departmental, academic and cross-agency peers. The ESWG recognised (to a limited degree) that with more recognised linkages through extension groups within departments in other states of Australia, as well as within Queensland itself, the recognition of New Extension as a legitimate advance in extension praxis, may have been stronger. The ESWG agreed that the different backgrounds of DNR&M ‘extension staff’ and ‘senior management staff’ required particular attention in order to secure acknowledgment that a different approach to NRM extension was necessary.

*Overlapping initiatives*

Astonishingly, two other significant initiatives were underway concurrently within the Department, Community Engagement and a project investigating institutional arrangements for Community-Based Natural Resource Management (CBNRM). These were exploring DNR&M's capacity and skills required for undertaking community support and consultation, and the manner in which the department should engage the community in taking responsibility for CBNRM. These initiatives and the extension strategy developed in isolation of each other. In retrospect, this was a critical failure\textsuperscript{38}.

It became evident from early interactions that the place of extension within the department needed to be defined. The ESWG took the lead on clarifying the boundaries of these aligned initiatives by developing a ‘Links and Terminology Table’ highlighting the differences of extension, community engagement, service delivery and capacity building in DNR&M business. This table endeavoured to highlight subtle differences, key philosophies and applications, and was circulated through a wide cross-section of managers and interested stakeholders at several stages throughout the extension strategy process.

A clearer understanding of the purpose and functioning of Community Engagement, CBNRM and extension emerged through informal interactions in late 2000 with the proposition that CBNRM is the ‘what’ and New Extension is the ‘how’\textsuperscript{39} of DNR&M business. The understanding reached was that CBNRM is the formal planning procedures and relational structures DNR&M is involved in when doing business in partnership with community. New Extension is the human dimension of learning and decision making support for working within this structure.

\textsuperscript{36} MBTI personality assessment, Myers & Briggs Foundation: \url{http://www.myersbriggs.org/my_mbti_personality_type/}

\textsuperscript{37} Belbin Team Roles, Belbin Associates: \url{http://www.belbin.com/}

\textsuperscript{38} My reflections three years later suggested that these initiatives continued even long after they had formally ceased

\textsuperscript{39} This clarification occurred in meetings of Community Engagement Policy Unit and ESWG members
Surprisingly, this understanding may never have eventuated if the close personal and professional networks of Mary and Sally did not exist. The formal communication and decision making channels within DNR&M did not identify issues with the parallel development of overlapping strategies. It was only through corridor conversations and informal contact between Mary, Sally and members of their respective professional and personal networks that awareness of the obvious overlaps in these strategies became apparent. At no point did the accountable managers overseeing respective processes identify the need for collaboration, or merger of these initiatives. This was further demonstration of the disconnect between conventional departmental processes and integrative approaches of the ESWG.

3.2.3 The methodology we adopted
From its inception, the ESWG chose to use a participatory approach as an inclusive strategy development process and agreed to ‘work with all DNR&M staff and stakeholders’. The group adopted a model developed by Richard Clark and Janice Timms titled: "A process and framework for change process and project design, management and evaluation" (Clark and Timms 1999). The ESWG coupled this with a strategic planning model\(^40\) in the **process** step of their framework (see Table 3.4).

<table>
<thead>
<tr>
<th>Change Design Framework</th>
<th>Strategic Planning</th>
</tr>
</thead>
<tbody>
<tr>
<td>Context</td>
<td>Set Goals</td>
</tr>
<tr>
<td>Purpose</td>
<td>Analyse - internal and external environmental scan</td>
</tr>
<tr>
<td>Objectives</td>
<td>Identify Options</td>
</tr>
<tr>
<td>Principles</td>
<td>Decide on preferred options</td>
</tr>
<tr>
<td>Process</td>
<td>Implement options</td>
</tr>
<tr>
<td>Techniques</td>
<td>Review and evaluate</td>
</tr>
<tr>
<td>Planning</td>
<td>Replan</td>
</tr>
<tr>
<td>Management</td>
<td></td>
</tr>
<tr>
<td>Evaluation</td>
<td></td>
</tr>
<tr>
<td>Critical Analysis</td>
<td></td>
</tr>
</tbody>
</table>

Table 3.4: Combining a change design framework with strategic planning (Clark and Timms 1999 and DPI 1998)

These two models underpinned the development of the ESWG’s process and provided an unspoken backdrop to group progress. The group also negotiated core principles that were to drive its method of operation (Table 3.5). The ESWG’s development and use of these principles and philosophies was a learning process in itself, and were ultimately reflected in Extension Strategy outputs.

\(^{40}\) These were the strategic planning steps advocated in the successful Property Management Planning extension program (Futureprofit) in DPI.
**ESWG Working Principles**

<table>
<thead>
<tr>
<th>Focus on outcomes</th>
</tr>
</thead>
<tbody>
<tr>
<td>Engender a process/analysis approach</td>
</tr>
<tr>
<td>Focus on sustainable resource management</td>
</tr>
<tr>
<td>Engender a planning and participation ethic for client delivery</td>
</tr>
<tr>
<td>Focus on supporting DNR&amp;M's mission, goals and values</td>
</tr>
<tr>
<td>Take a whole ecosystem approach (social, technical, ecological, economic and political)</td>
</tr>
<tr>
<td>Use collaborative processes (inclusive, flexible, equitable, client focussed)</td>
</tr>
<tr>
<td>Focus on achieving committed participation and ownership of outcomes</td>
</tr>
<tr>
<td>Use participatory and inclusive learning processes</td>
</tr>
<tr>
<td>Foster continuous improvement</td>
</tr>
<tr>
<td>Ensure consultation and collaboration with all stakeholders, both rural and urban</td>
</tr>
<tr>
<td>&quot;Practice what we preach&quot;</td>
</tr>
<tr>
<td>Evolve with clients</td>
</tr>
<tr>
<td>Build on the current organisational structure of DNR&amp;M</td>
</tr>
<tr>
<td>Build on intuitive and expressed needs</td>
</tr>
</tbody>
</table>

Table 3.5: Negotiated working principles (and philosophies) of ESWG practice

**Participatory strategy development - the extension dynamic in action**

Certain senior staff had difficulty reconciling the use of an interactive participatory process to develop an extension strategy. This was quite removed from conventional practice within the department. This opinion was indicative of the linear ‘top down’ policy development philosophy embedded within a number of DNR&M staff. In spite of this disconnect, the ESWG (along with several supportive managers and executives) agreed that participatory policy development was the only workable process where:

- multiple stakeholders can come together to develop plans, implement activities, monitor progress and adapt their views on extension
- people can collectively balance their needs and move towards achieving agreed outcomes in complex dynamic systems
- learning and adjustment is possible in the face of uncertain and unknown interactions and responses.

From June to December 1999, the ESWG worked with many stakeholders and collected as much data/perspectives as possible. Considerable effort was put into facilitating regional workshops and interacting with Regional Extension Teams. In the Central West and South West, the role of the Regional Extension Teams was pivotal in engaging staff from a range of business groups in the participatory process. The rewards for their efforts were good staff attendance, a sense of ownership, development of trust, relationships, and the sharing of experience and ideas. Paralleling these workshops, a range of interviews, case studies and literature reviews were undertaken, and a concerted effort was put into interacting with the different levels of DNR&M management. Several techniques such as presentations, fishbowl exercises, focus groups, morning-tea round tables and interactive workshops were used.

Key elements in this strategy development process included:

1. Using the framework process (as per Timms and Clark above)
2. Compiling a list of key stakeholders to target
3. Organising regional, metropolitan, and head office workshops
4. Organising voluntary regional extension teams to assist where possible
5. Conducting 40 interviews of internal and external stakeholders
6. Developing a web page on the DNR&M intranet
7. Communicating progress and process with staff and key stakeholders
8. Conducting a literature review on extension

Identifying Contemporary (NRM) Extension
While the ESWG conducted a literature review in 1999, which investigated contemporary understandings and practices of extension, the consensus was that little information focused specifically on NRM extension. Reviewed writings targeted more orthodox areas of extension praxis including agricultural extension and the broader field of rural development.

At the time, the Australasia-Pacific Extension Network suggested:

No-one can agree on an exact definition for extension, but: it involves the use of communication and adult education processes to help people and communities identify potential improvements to their practices, and then; it provides them with the skills and resources to effect these improvements. Many different organisations and industries are realising the need to be involved in facilitating change across communities. To effect these changes, extension practitioners need to learn new skills and draw on the learning and resources of others to improve their practice and theory (APEN 1998:1).

The ESWG also reviewed texts on extension in Queensland. DPI’s (then) Director of the Rural Extension Centre, Jeff Coutts wrote, “Definitions become important when considering extension ... without collective understanding of ‘extension’, policy debate is confusing and impossible to conduct” (Coutts 1994:3). He recommended a framework for considering the range of perspectives and paradigms that exist in extension (following Bloome in Coutts 1994). The range (represented below) proceeds from Technology Transfer to Human Development.

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**Technology Transfer**
- Changing voluntary behaviour by delivering ‘new technology’ and persuading landholders that expert developed solutions to problems will improve production output, living standards and/or ultimately sustainability. ‘Adoption’ of advice, material, etc. is the method of achieving change.

**Problem Solving**
- Assisting individual landholders to find solutions to technological or management problems inhibiting desires performance. ‘Adoption’ is a more indirect, though inevitable mover of change in this process.

**Education**
- Proactive ‘informal’ education seeks to assist landholder’s understanding of their problems and situation, so as to enable them to make their own choices and solve their own problems

Figure 3.2: An extension spectrum has at one end persuasive extension, with the opposing extreme being facilitative extension (adapted from Coutts, 1994).

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41 In 2006, a new definition was developed by a new group, the State Extension Leaders Network, which is gaining popularity.
42 Sally and myself also interviewed Jeff Coutts.
The ESWG also investigated writings from Richard Clark and Janice Timms, both recognised extension specialists in DPI. Clark et al. (1999) advocated multiple methods saying what is important is:

Extension as a discipline operates in a purposeful context and is designed to achieve outcomes of both a general nature “improving grazing practices” and of a more specific nature “to have 10 farmers adopt this piece of technology”. It is inconceivable therefore that the same approaches can or should be used to meet the variety of outcomes that are expected (Clark and Timms 1999:2).

In addition to the above, the ESWG placed a lot of stock in the Niels Röling’s contributions: Extension has targeted knowledge development from its inceptions but the mix of theory and practice has continued to evolve through time. Given that development of knowledge is our survival strategy, the capability to adapt to changed circumstances is governed by receiving and interpreting signals and developing appropriate theory and technology in response (Röling 1996:1).

The ESWG also considered other international literature:

- There is no single ‘right’ or ‘wrong’ way of delivering public extension. Extension’s philosophy is to help people identify and solve their own problems. The common factor is the desire to help people improve their quality of life and maintain viable, profitable (agricultural) ventures (Murray 1999:1)
- Extension has been defined in the FAO as "an on-going process of getting useful information to people (the communication dimension) and then in assisting those people to acquire the necessary knowledge, skills, and attitudes to utilise effectively this information or technology (educational dimension)." (Van Crowder 1996:1)
- Extension is about: Development of people, enabling them in self-direction, resource management, and the management of change; Education that empowers people through the acquisition of new knowledge, attitudes, skills, and aspirations; Teaching methods are informal, off-campus, and oriented toward people's opportunities, problems and needs; Reliable, credible, research based information; Priorities arise from mutually agreed upon issues by three partners: USDA, land-grant universities, and local people (USDA 1999:1).
- Extension's ultimate goal is not more and better food, clothing, or housing. These are means and conditions prerequisite to the improvement of human relationships, of intellectual and spiritual outlook. Extension's ultimate goal is in the development of people themselves (Stillwell 2000:2)
- Extension is an education process. Extension systems inform, convince and link people, they promote the communication between farmers and other resource using groups, researchers, managers and leaders (Falconer 1987:3)
- Worldwide, extension is being reborn in many new forms. Extension as a philosophy and practice is evolving over time and attempting to define the discipline in a single definition is problematic. … it’s the journey that is important, not the end point. Besides we will never get there (Pretty pers.comm. 1997 1999)

Haug (1999) points to extension’s development into a systemic discipline that supports knowledge development both in the institutional landscape surrounding NRM, as well as the land users and resource managers that have direct impact on sustainability. If this is so, then the ESWG felt it needed to establish what the paradigms underpinning extension theory
should be in DNR&M. The ESWG also took the paucity of ‘NRM extension’ literature as an open mandate for new theory.

**Synthesis of information and perspectives**

In early December 1999, the ESWG met for a week in what was dubbed “the lock-up” to begin drafting the first extension strategy document. Group processes were very dynamic over the five days and resulted in surprising outcomes. The first two days were spent sharing collected information amongst the group. As the ‘information dump’ concluded and the picture of extension in DNR&M became increasingly complex and fragmented, group members expressed the need to order this in a meaningful way. The group found it invaluable to de-construct DNR&M’s operational and service delivery needs and then reconstruct it in terms of extension strategies needed to support the achievement of these outcomes. Extension roles in land administration, catchment management, regulation and compliance and institutional development were considered. It was at this point that the group felt they clearly started to move beyond the agricultural extension paradigm.

Key findings that emerged included: systems approaches to working with collective responsibility and individual responsibility for NRM outcomes; whole systems approach to internal client interaction in DNR&M as well as interactions with external clients, and; a whole systems strategic framework to improve the way that DNR&M goes about its business, as well as how ‘extension practitioners’ go about their business. The framework was intended to be simple and follow a logical pattern: What is our purpose?; How do we achieve our purpose?; How do we know we are achieving this? (Leach and Hobson 2003). The differences between agricultural extension and New Extension as perceived by the ESWG are recorded in Figure 3.3, an internal DNR&M communiqué used for newsletters and email circulars. The ESWG began to see a different emphasis in extension from supporting primary production sustainability and viability (DPI&F’s extension traditions) to incorporating the DoL’s administrative function and focusing on the planning and compliance requirements under a developing legislative base in water, land, vegetation and pest management. This changed the focus of extension from advocacy and capacity building in order to promote sustainable and viable production systems, as inherited from DPI, to necessarily embrace a wider role of interaction and intervention to achieve compliance with DNR&M’s legislation.

**Repositioning function – De-construction then Re-construction of DNR&M Outputs**

The ESWG regularly broke into pairs and trios to complete tasks and would then reconvene to analyse and process the results. Discrete elements important to the contemporary and future NRM extension system were identified and grouped. DNR&M’s future was at this time also being affected by senior management’s re-alignment of the department’s reporting mechanisms in response to a special initiative within the Queensland Government (Output Based Management). The new terminology used in this re-alignment was incorporated into this grouping process. The ESWG prepared a number of documents attempting to make sense of these groupings and the large amounts of information. These were presented to the Extension Strategy Board and Executive Management Group (EMG43) to help in their deliberations on the organisational restructure that was taking place.

This process of deconstructing and reconstructing the basic reasonings of what makes up NRM extension in Queensland, was an invaluable step on the path to proposing a new way for how DNR&M does business.

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43 The EMG is the most senior decision-making group in DNR&M
3.2.4 The "New Extension Framework" emerges

Early in 2000, the ESWG coalesced the ‘threads’[^44] that had been gathered through the data gathering process outlined above into nine separate areas. These ‘planks’[^45] were titled: (1) Know the Role of the Department of Natural Resources in Managing Land, Water & Vegetation; (2) Know Our Clients; (3) Work Together; (4) Take a Holistic Approach; (5) Develop and Share Knowledge; (6) Support Development of People’s Skills and Capacity; (7) Ensure Accountability; (8) Provide Leadership, and; (9) Support A Community Stewardship Ethic for Land, Water and Vegetation.

It was agreed at this point that the emerging philosophy of extension and diversity of business groups and approaches may be best served by an adaptable framework of ‘extension principles’, rather than a prescriptive strategy complete with business group action plans and projected budgets (Note: Executive Management had expected a prescriptive outcome, and the ESWG failed to deliver this).

**Reviewing the Draft New Extension Framework**

The ESWG met again in January and March to finalise and release the draft framework in April 2000. The completed draft was professionally formatted early in April 2000 and readied for feedback. The ESWG agreed to re-contact as many of the original sources that contributed

[^44]: Information deemed by individuals and sub-groups within the ESWG to be important to extension in DNR&M
[^45]: As suggested by Bob in the ESWG
information and perspective to the draft document as possible, to review it for sign-off by the ESB and the EMG. Similar processes to those in initial data collection were used with individuals and groups over a six-month timeframe. From this process, the ESWG found strong concordance, with few significant changes suggested by departmental staff or external stakeholders.

The draft was distributed internally and externally and placed on Insite (the internal departmental website), accessible for all staff to view and provide feedback. The review process also included Head Office workshops, interviews with a wide assortment of stakeholders, an ‘Extension Specialist Critique Workshop’, and anecdotal feedback. The ‘Extension Specialist Critique Workshop’ allowed experienced practitioners and academics to add value to the emerging New Extension Framework. Participants strongly supported the overall direction and highlighted some key changes that would give it a sense of purpose and make New Extension’s logic clearer. The major recommendation was that the nine planks could be more meaningful and strategic if links amongst them were more evident. They were consequently arranged in a more logical and purposeful progression.

The ESWG used all feedback to reformat the Draft Framework at a meeting in August 2000 and prepare it for sign-off. Little of the original content was changed, but reconstituted as a Framework with a logical progression. The ESWG could not decide which contemporary title or name was a fitting label for this Framework. The term ‘Extension’ was seen as not engaging a large number of DNR&M staff who had little, if any, prior dealings with the discipline. Additionally, the ESWG felt that the term ‘Extension’ conjured for most people familiar with the discipline, an image that was not fitting with the purpose, philosophy and practice emerging from the DNR&M extension strategy. So a ‘happy’ compromise was struck and ‘New Extension’ was born. ‘New’ inferring changed and different, designed to engage the non-engaged, and not to disenfranchise those who had some ownership and belief in the (traditional) ‘extension’ discipline.

The draft document underwent review for a period of six months involving a wide range of internal and external stakeholder. Following this, feedback was then used to reformat the New Extension Framework.

As the highly inclusive (or participatory) extension strategy process had begun to unfold toward the end of 1999, the ESWG had come to the perception on the basis of stakeholder input and collective interpretations, that the challenge for extension in the global NRM arena was enormous – ‘To enable chosen and unchosen change in how all members of society interact with our environment as we strive for a sustainable environment and future’ (Whiteford et al. 1999, Leach and Hobson 2001, Leach 2001). For DNR&M as an agency within the Queensland Government, the challenge was daunting and the ESWG recognised the difficulty of finding a ‘bite size chunk’ that would significantly influence the State’s ever increasing multi-stakeholder NRM system, while retaining a bounded extension discipline or service. The ESWG strove to present New Extension as ‘understandable’ principles in a model that DNR&M staff and stakeholders could use.

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46 Note: I personally believe that ‘NRM Extension’ is the label that we should have used. This would have made a clear distinction that NRM extension was different from agricultural extension and provided some ownership for DNR&M staff of extension for NRM outcomes.
Considerable momentum built through the development phase foreshadowed the following changes:

1. New Extension is ‘whole-systems’ in both philosophy and practice and would transform the ‘way of doing business’ in DNR&M
2. New Extension is a ‘learning’ mechanism to support DNR&M staff working with change and enabling organisational response to change
3. New Extension helps enable DNR&M staff in greater use of multidisciplinary and interdisciplinary team approaches.
4. New Extension creates opportunities for stronger relationships among departmental and non-government providers in delivering extension services
5. New Extension supports and recognises many excellent extension initiatives currently in progress.

Figure 3.4 shows a model of the New Extension Framework. The framework was viewed as being strategically applied at several levels. It was seen as a philosophy and practice for doing business as well as an operational guide for the development of NRM change. The fundamental focus was on seeking continuous improvement in the human dimension of natural resource management.

In November 2000, the Executive Management Group and Minister in DNR&M were to endorse the New Extension Framework for implementation across the department. This endorsement, however, never came, for reasons which will be outlined below.

3.2.5 Supported, but NOT signed off by EMG

‘Sign-Off’
The New Extension Framework was presented to the Extension Strategy Board (ESB) in September 2000 and was ‘unofficially’ endorsed for implementation across the Department. The ESB explicitly recognised that ‘New Extension’ needed to focus initially on the organisational functioning of the Department and the transitional changes occurring in the re-structure DNR&M was undergoing at that time. It was suggested by one member of the ESB that ‘New Extension is a good business re-positioning model that needs to be applied to the way DNR&M does business.’ Following ESB’s support, later in September 2000 the framework was to be tabled in the next Executive Management Group (EMG) meeting seeking endorsement for implementation across the Department as ‘the way we do business in NRM’.

The ESWG did not receive a message from EMG that New Extension had been officially endorsed. However, given the strength of the ESB’s support and no words to the contrary from EMG members, the ESWG assumed agreement had been secured and proceeded to move toward implementation. The New Extension Framework was then presented to the then Minister for Natural Resources, the Honourable Rod Welford, in November 2000.

47 Retrospectively, it was observed by several senior staff that the principles of the New Extension Framework helped underpin several other institutional change strategies post November 2000.
**What's New about “New Extension” in DNR&M?**

Natural Resource Management Extension is evolving from approaches to extension that are founded in Agriculture and Rural Development throughout the developing and developed world. The Queensland Department of Natural Resources and Mines in the two-year period June 1999 – June 2001 has taken significant steps to increasing the understanding and practice of NRM extension. During this time, an inclusive and participatory Extension Strategy Development Process resulted in a new construction of what NRM extension is and should be in Queensland, given the department’s range of roles.

‘New Extension’ is an integrated and strategic business approach to facilitating and improving individual, group and community decision-making and actions for sustainable resource management.

**The purpose:**

‘New Extension’ aims to support continuous improvement in knowledge and practice that enable individual, group and community decision-making and actions for sustainable resource management.

**The philosophy:**

- ‘New Extension’ adheres to principles of:
  - Continuous improvement in NRM knowledge and practice
  - Independence and fairness
  - Valued client partnerships and relationship building
  - Joint participation, negotiation and learning
  - Systems thinking and holistic approaches
  - Integration and collaboration on initiatives, projects and proposals
  - Constant change
  - Leadership, accountability and client service
  - Investing in people’s skills, knowledge and willingness to contribute.

**The practice:**

‘New Extension’ is the business practice that puts these above principles into action through examples such as:

- Purpose based group activities
- Community group activities
- 1-on-1 activities
- Collaborative partnerships
- Participatory NRM policy-making
- Training & Advice

This view on NRM extension significantly broadens the current approach to Agricultural Extension, which can be defined broadly to include public and private sector activities relating to; Technology transfer, Education, Attitude change, Human resource development, and Dissemination and collection of information (from Sally P Marsh & David J Pannell, November 2000).

So, what is ‘new’ in DNR&M’s approach to extension

‘New Extension’ is a whole systems strategic framework to improve the way that 'DNR&M goes about its business, as well as how ‘extension practitioners’ go about their business. ‘New Extension’ includes all people in the department, as well as ‘extension officers.’ It targets continuous improvement of NRM knowledge and practice internally as well as externally to DNR&M. New Extension’ places a large emphasis on social science and the social realities of NRM as well as the economic and physical aspects of NRM.

‘New Extension’ takes a whole systems approach to internal client interaction in DNR&M as well as interactions with external clients. It enables integrated planning and action for all DNR&M business - internal as well as external. The ‘New Extension’ framework has been developed in a participatory manner inclusive of district, regional, and head office staff, as well as extension practitioners. ‘ The framework is a collective DNR&M perspective of what extension is and how it needs to function in the area of natural resource management as well as a contemporary academic and ‘extension specialist’ perspective.
The challenge for ‘New Extension’ is to effectively negotiate with different sections of the department and help implement changes that are necessary to improve current business functioning and client interaction. R&M as well as interactions with external clients. It enables integrated planning and action for all DNR&M business - internal as well as external. The ‘New Extension’ framework has been developed in a participatory manner inclusive of district, regional, and head office staff, as well as extension practitioners. The framework is a collective DNR&M perspective of what extension is and how it needs to function in the area of natural resource management as well as a contemporary academic and ‘extension specialist’ perspectives.

The challenge for ‘New Extension’ in the coming months is to effectively negotiate with different sections of the department and help implement changes that are necessary to improve current business functioning and client interaction (Leach 2001).

Figure 3.4: Communique 2000 - What’s New about “New Extension” in DNR&M?

At the end of 2000, the ESWG formally disbanded after agreeing on some overall approaches to implementation. While the ESWG had been afforded a unique vantage point for considering organisational change within DNR&M, most members felt that the organisational change agenda was far beyond the initial expectations of the extension strategy process. The ESWG agreed that it was appropriate to disband at this point, believing that organisational learning, organisational change and development within DNR&M will be sufficiently served by the New Extension philosophy and practice, and that these changes would ‘voluntarily’ take place. Three members of this group continued to progress endorsement of the framework with key managers, and to negotiate the operational arrangements needed to progress implementation (Mary, Sally and myself). As the ESWG had become a close working unit, it was without question that we continued (at least for some months) to correspond with all members about issues and approaches to implementation. Below, are some implementation plans.

**Implementation continues**

The ESWG recognised that the key changes of the proposed extension strategy process were potentially quite radical for the direction and function of DNR&M and many of its staff. It also recognised that the true test of effective change would be the successful re-adaptation and application of New Extension philosophy and principles to general DNR&M business.

Significant changes foreshadowed were:

- A re-orientation and broadening of extension as a whole systems strategic framework to improve the way that DNR&M goes about its business
- The placing of a larger emphasis on social science and the social realities of NRM in balance with economic and physical aspects

The ESWG also agreed that New Extension would support impending whole-of-government changes where a new division, the Community Engagement Division, would be created within Premier and Cabinet (Plenty pers.comm., Beattie 2001 and see Chapter 2). New Extension could provide DNR&M with a Framework for how community engagement can take place, giving all stakeholders a better chance to contribute to NRM policy and government decisions (Hobson and Leach 2001).
The ESWG saw primarily that the challenge would be the ongoing implementation of the framework in DNR&M. The following steps were proposed:
1. The negotiation and institution of a New Extension Implementation Team
2. The re-engagement of Regional Extension Teams and/or regional support officers to drive the implementation of New Extension and oversee community engagement processes
3. A reporting mechanism for New Extension in DNR&M
4. A move toward effective partnerships with community and external providers

The foreshadowed task was to facilitate adaptation and advancement of ‘New Extension’ philosophy and practice within DNR&M in partnership with community.

### 3.3 New Extension implementation: The non-event

In January 2001 the ESWG approached the year confident that the New Extension Framework had received executive management and Ministerial support within the Department for being implemented as the ‘new way of doing business in Natural Resources Management (& DNR&M).’ However, the ‘formal’ support many had been expecting was never received. The ESWG was aware that New Extension had the informal support of two EMG members as a long-term learning and continuous improvement exercise, to test, apply and better the philosophy and principles contained within the framework over the next years. Endorsement from the Minister and Executive Management Group as a discrete initiative, however, was not communicated. It seemed (or the ESWG surmised at the time) that New Extension had not been formally tabled.

A degree of uncertainty exists as to what actually took place in the EMG when the New Extension Framework was supposed to be on the decision-making table. In early to mid 2001 we could only surmise that there was no decision made, it had not been discussed, it was too complex to deal with, it was the wrong time, too many other things were going on. Given the inordinate amount of initiatives, changes and restructures that were taking place during this time, it was not surprising that ‘New Extension’ was but one issue amid a myriad of other, possibly more pressing, issues.

Notwithstanding this, through informal interactions one of the two supporting members of the EMG encouraged the ESWG to continue with implementation. Considering the very ‘public’ and inclusive development process, and that a significant number of staff held expectations of implementation, continuation was a logical step. After all, while the EMG had not communicated formal support, neither had it indicated a lack of support. The ESWG was optimistic that the considerable enthusiasm, input, ownership, and momentum behind the New Extension Framework would enable its grounding and further improvement.

Following the ESWG disbanding, interactions with Regional Service Directors and managers in Head Office continued. Support dwindled, however, across most of Queensland in the ensuing months, even though the South West Region maintained its efforts to position New Extension and coordinate implementation through the Regional Extension Team. The South-West Extension Group (SWEPG) met a number of times through 2001 and some ESWG members were able to attend three of their meetings. Their efforts continued into 2001, however ever decreasing enthusiasm and support saw their demise in early 2002. It seemed that changes in motivation, combined with the silence from EMG were combining to quash progress.
3.3.1. Change in motivation for participation in New Extension

Following the completion of the development phase, the key motivation for stakeholders participating in the New Extension initiative perceptibly changed. In the development phase, DNR&M staff participated freely when helping colleagues draw together a ‘collective position’ for NRM extension in the department. The outcome was an ‘ideal’ concept and the risk to the individual was small – New Extension was seen as a collective good. The tide ebbed, though, when implementation was discussed, and the impact of New Extension on individuals, on work teams, and on larger business groups posed the threat (or opportunity) of change. It seemed that what many staff said they believed in (or espoused), they found difficult to put into action.

After November 2000, to most DNR&M staff, the ongoing cooperation from the Executive Management Group (or lack of a directive to abandon it) met their expectation that New Extension would be implemented. The New Extension Framework had been building a web-presence on the internal internet site for over twelve months, complete with a web-page and readily available copy of the framework and other documents. This web-page continued to exist for the subsequent three years. Therefore, very few staff members were overtly aware of the lack of official sign-off.

For those DNR&M staff expecting New Extension to be implemented, they were confronted with a document, which for some may have looked like a manifesto with its complexity of embedded philosophies and principles, but with no additional communication from management, and no implementation support. Sure, these individual staff members may have contributed to ‘New Extension’, and may have supported it in principle, but now they were ‘supposed to’ critically apply this to their dealings with clients, to themselves, to their work teams, and in their relationships with colleagues. For many, the question of ‘How should New Extension principles be applied in their work?’ was a confusing challenge.

In continuing to implement New Extension through 2001-02, Mary and myself (who had not been told to cease actions) developed an action plan for the ensuing months and proceeded to make contact with a number of groups. Some DNR&M staff saw that New Extension supported and verified how they have as individual practitioners, and in collaborative projects, approached NRM business for some time. A number of other traditional extension practitioners also responded this way. For the larger majority of staff interactions, however, when faced with implementing the philosophies and principles of New Extension, most were quite defensive about reviewing, adapting and/or changing their NRM business practices. With no formal words of endorsement or directives from management, these staff resisted further implementation efforts. At the start of 2002, groups such as the SWEG (South West Extension Group) had obviously begun to question the legitimacy of New Extension and consequently their need to meet the requirements of that process. There was active resistance to progressing further with New Extension.
3.4 Longer-term reflections

3.4.1. What changed for the Department?
From an organisational change perspective, a significant number of staff queried the fact that New Extension seemed to have been ‘shelved’. Many of the changes espoused in the Framework document did not eventuate in the longer-term. Reflections four years later see that the exercise was ironically quite counterproductive. ‘Extension’ became tainted with an identity that conveyed images of inadequacy, poor legitimacy and of being ‘old hat’. The ESWG believing that they had moved beyond the ‘agricultural extension’ paradigm toward ‘NRM extension’, but in organisational terms had not, and may have in fact further cemented the opinion from some sections of DNR&M (e.g. the Phillipson review), that the role and place of extension in DNR&M was highly debatable.

3.4.2. What changed for members of the Extension Strategy Working Group?
In contrast to the counterproductive outcomes at the Departmental level, the impacts that the extension strategy process had on ESWG members were very significant. Each ESWG member contributed to the development of a list of changes they experienced as a result of being involved in the extension strategy process. These were:

1. Greater understanding of extension and capacity to ‘practice-what-we-preach’;
2. Professional and personal development from participating in an effective self-managing team that followed a longer-term project to fruition;
3. Learning from the agony and ecstasy of being part of a self-managing team, where members had to apply their knowledge and experience in how teams function. At times this was painful and the ESWG had to stop and reflect on how the group was working. This meta-process reflection, negotiation and re-adaptation proved invaluable for progress and professional development;
4. Recognition of the importance of building relationships and trust and how this philosophy can extend across different stakeholder groups. These interdependent attributes took considerable time and effort to build, but were foundation elements in the ESWG's effectiveness as a group. For the ESWG, trust became very strong and remained so long afterward.
5. Improving personal extension philosophy and practice.
6. Participating with other team members familiar with extension principles, philosophy and team dynamics enables the rapid ability for members to move through group formation processes quickly. In a short space of time the ESWG was able to ‘storm’, ‘norm’ and ‘perform’ at an effective capacity.
7. New Extension principles were validated as a ‘group culture’, the internalised approach of the ESWG for dealing with tasks and issues (based on Leach and Hobson 2003 and Hobson et al. 2001)

48 A metaphoric expression meaning that ‘New Extension has been put on the shelf’, either to be used at some later time, or forgotten about completely
49 Bob, a member of the ESWG, met me at an awards ceremony earlier in 2004 and commented that he had won an achievement award by applying the principles of the New Extension Framework to his Integrated Area Management Project in central Queensland
50 Characteristics of phases of group development have been described as: (i) forming, (ii) storming, (iii) norming, (iv) performing and (v) mourning or adjourning various (in Tuckman and Jensen 1977).
3.5 What went wrong with the implementation of New Extension?

Running out of 'know-how' and enthusiasm
As Group Leader, Mary had a multitude of pressures and tasks to occupy her time, and later in 2001 proceeded to spend less time concerning herself with implementing New Extension. I was also asked to work on other projects and ultimately efforts to implement New Extension were abandoned completely for nine months (starting September 2001). During this time I relocated from Indooroopilly (my normal workplace) to Mineral House (Central Headquarters) in the city to lead a review of natural resource information in NR&W (see Chapter 5). Interestingly, through this period a considerable number of staff, including a number of General Managers and a Deputy Director General, communicated informally their regret at how New Extension had not progressed further. Some even queried the possibility of reviving it.

The salient point upon reflection, however, was that as time went on, Mary, Sally, myself and other members of the ESWG, all had become increasingly paralysed. In wanting to use the principles within the New Extension Framework to assist its implementation, or in other words 'practice-what-we-preached', we had encountered an unexpected, and yet telling obstacle. We simply did not know how to interact with management, with operational staff, with stakeholders or with each other in order to resolve the endorsement issue. The ESWG did not know how to effectively challenge contemporary DNR&M business practice with New Extension principles. We had expected that through learning about New Extension in interactive processes, different stakeholders would be able to embrace the embedded principles and learn their way to new and better practices. However, we seemed to lack the 'know-how' required to work with, collaborate, confront, re-position, repackage, or intervene in decision-making processes to progress New Extension. Nor did we have the resolve to accept the lack of support, accommodate, or indeed visibly and explicitly retreat from the position we had been advocating. We simply did not know how to progress forward or backward.

As a consequence, the enthusiasm built up through the highly effective ESWG interactions also began to waver. Mary, myself and other members of the ESWG had turned our attention and enthusiasms to more productive pursuits.

One missing link - DDG endorsement for implementation
It was only a short time later that one of the missing links became apparent as to why New Extension had been (perhaps inadvertently) ‘smothered’ by the EMG. Following is my reconstruction based on numerous conversations with key departmental staff over the ensuing.

The Executive Director of the Strategic Directions Business Group (Sam) had been the primary high-level advocate and supporter of the New Extension development process. Sam championed the need for an extension strategy and, as a member of the ESB, continually condoned and supported the continuance of ESWG efforts. While Sam was a vocal supporter of New Extension, this was a lesser role than the Director General and Deputy Directors Generals in the Executive Management Group (EMG). Sam carried the assumption that the development process would continue to be ‘unofficially’ supported by the EMG as it had been since 199851. Therefore, Sam did not feel the need to gain official endorsement or consider

51 Before the EMG was instituted the DG was a different person and the majority of upper management positions changed through this 18 month period (1998-99)
tabling the New Extension Framework with EMG until late November 2000, but by this stage it was too late!!

One of the Deputy Directors Generals (DDGs) was replaced by a new appointee to the role in October 2000. The outgoing person had been verbally supportive of the New Extension Framework through its development, however the ESWG felt it important that the new person was afforded a presentation of the framework to raise their awareness, invite their comment and ultimately secure their support. So, in the second week of taking up office, the new DDG was shown a PowerPoint presentation and invited to contribute comment and endorsement. The DDG obligingly expressed enthusiasm for the intent and principles underpinning the framework and for the ESWG’s proactive approach to interacting in light of the recent appointment. The DDG did not offer at this point any opposition to the implementation of New Extension in DNR&M and the team assumed that this meant full support and endorsement for further progress.

It was rumoured that the new person had overseen a departmental restructure in another State and had been given a non-disclosed strategic role to fulfil in DNR&M. On reflection sometime afterwards, the ESWG acknowledged that they had not effectively engaged with the new DDG’s strategic agenda for the Department’s approach to doing business. More time settling into the new role would have been beneficial, and enabled greater capacity for critical feedback or input to New Extension. In fact, this early interaction was possibly counterproductive because, on reflection, it seemed that the recently appointed DDG saw New Extension as a potential opponent to the strategic agenda and role in DNR&M to be fulfilled. This was particularly because the EDSD, Sam, may have been seen as an unknown quantity by the new incumbent. It later became apparent also that, with the new appointee’s background, the intent was to strengthen the financial aspects of the NRM change agenda, using instruments such as financial incentive systems and suchlike. As a consequence, at the EMG level at least, the new DDG was a key detractor and adversary to the carriage of New Extension. Unwilling to risk the likely rejection of New Extension, it seems that Sam had shown support by not tabling it, hoping for a later window of opportunity.

One telling reality was that at the time the ESWG was quite aware through rumours and informal feedback the new DDG was having some difficulty positioning extension in the DNR&M service delivery portfolio. The ESWG was also cognisant of the quite passionate deliberations taking place where this person wanted the Communication Education and Extension Support Group to relocate into the city in close proximity to the Service Delivery Group that was developing. Not knowing how to enter into this decision-making process, the first reactions from the science staff at Indooroopilly (including Mary) were very defensive, rejecting and opposing the idea outright. This defensive response was arguably counterproductive to extension’s future.

Other missing links – New Extension’s lack of implementation guidelines, examples and NRM reform

Early in 2004, contact with Tom, a General Manager for Integrated Resource Management who was a long-term unofficial supporter of New Extension (in Chapter 5 and Chapter 7) provided further feedback on the framework’s non-endorsement. Apparently, senior management at the time had difficulty with the fact that the New Extension Framework consisted of principles that many found conceptually difficult to apply to their respective
business groups. Tom indicated that the framework would have been much more amenable to being considered by these managers had it had implementation guidelines that outlined ‘applied’ examples of these principles to key departmental business groups, and perhaps down to project level.

A further reflection that Tom made was that in the period 1999-2002, DNR&M had been subject to considerable NRM reform due to obligations and directives from international agreements, alongside significant national political pressure. If New Extension had been able to demonstrate, using one of these reform agendas, how it would assist the process of change, it may have been viewed more favourably. Notwithstanding these two longer-term reflections, however, this GM continued to question why extension has not been considered necessary for DNR&M’s participatory planning and compliance responsibilities.  

It appeared to many DNR&M staff members that the ‘policy window’ that may have been there when the New Extension strategy was initiated was closed when it came time to implement it. This added weight to the questions that continued to plague a number of people over the ensuing months and years: given that New Extension was highly regarded by a large contingent of DNR&M staff what are the processes that could be used to institutionalise New Extension in DNR&M? This question and the continuing interest in extension expressed by these managers drove me to further investigate and research the context of decision-making within institutional NRM interactions. What did we miss in the process, and/or what was missing from the New Extension Framework? How does decision-making take place with institutional aspects of extension elsewhere?

The following section questions the decision-making processes surrounding extension in the Queensland Government. We step forward two years to the Aligning Services and Priorities (ASAP) review introduced in Chapter 3 (see Section 3.3.3) to investigate this problematic decision-making process and how stakeholders interact when responding to Cabinet (the CBRC - Cabinet Budget Review Committee) about organisational issues surrounding extension across DPI&F, EPA and DNR&M.

3.5.1. Withholding the ASAP extension review – The need for better decision-making processes

Contact with key coordinators of the ASAP team reviewing extension across Queensland agencies through the latter half of 2003 and the beginning of 2004, saw that ‘strategic positioning’ was the primary reason given for withholding the report from the CBRC. ‘Science Queensland’ had been mooted in 2003 amid the Labor government’s positioning for re-election, as a distillation of science units within the public service into one super-agency. This super-agency was set to amplify the government’s priority push to have Queensland recognised as the ‘Smart State’ in Australia. Its key orchestrators saw the ASAP review, as a critical lever for defining role and position of extension within Science Queensland (Letts pers.comm., Timms pers.comm., Woodward pers.comm.). These agency staff (and others) communicated in 2003 that once ‘Science Queensland’ was announced, the ASAP review on extension was ready for immediate tabling with the CBRC.

53 Until his retirement in 2005
54 These supporters arguably fitted into a subculture within DNR&M, comprised of ex-extension staff, researchers from historic RD&E programs in DPI, managers with historic extension experience and regional staff who had witnessed the social interface role of extension in rural communities.
55 Aligning Services and Priorities, the 2002-03 cross agency cost cutting exercise in Queensland Government mentioned in Chapter 1
Science Queensland was not announced, however, and the ASAP review continued to be withheld. It is only retrospectively over a year later, that further reasons began to emerge as to why its submission to Cabinet was continually stalled. The limited inclusion of some key stakeholders in consideration of extension’s role (Hamilton pers.comm.), as well as the lack of clarity between the DPI – DNR&M – EPA split on extension’s function in achieving sustainable NRM and/or sustainable production (Nielsen pers.comm.) were mentioned. The draft report also provides a clue for re-considering why the ASAP review was not tabled with the CBRC:

Where multiple agencies are involved in the delivery of a desired result, negotiations among agencies will take place within a clearly defined context. When a final position has been reached, each agency will be clear about its responsibilities in bringing about the desired result (Queensland Government 2003:4).

3.6 Drawing conclusions: The ‘New Extension non-event’

3.6.1. ESWG learnings about organisational change
While not considered at length subsequent to the ESWG disbanding, there were a number of salient learnings that were emergent from the New Extension exercise. The key finding was that the ESWG had to understand and respect the importance of perception, or how stakeholders perceive the role and function of extension in DNR&M for enabling responsible NRM behaviours. Other key learnings were:
1. Staff have diverse views about DNR&M's core business, role and purpose.
2. Staff have contradictory views of who is/are DNR&M's primary client(s)
3. Staff recognise that the people component of doing business is vitally important and more emphasis needs to be placed on this
4. Participative processes may be slow and arduous, but clearly result in shared learning, help determine collectively considered ways forward, enable new ideas to be explored, and gain commitment and action.
5. It is essential to take time out to reflect intensively on the current situation; what will make a difference, and the implications for the future.
6. It is essential to improve networks and access to decision-makers, encourage critical thinking, and establish early links to key strategies and developments to ensure relevance and integration.
7. Considerable benefits are gained from using project teams that are multi-level, multi-disciplinary and cross-representative of regions and business groups.
8. Genuine relationship building is vital both internally and externally for success
9. Awareness and inclusion of different levels of power is essential in achieving effective contribution, ownership and support.

Despite these more normative learnings, characteristic with most participatory processes, there was obviously a key learning to come from the non-endorsement.

3.6.2. Bottom-up extension policy development is problematic
It could be argued that the New Extension strategy process aims of embedding extension functions and practices in DNR&M were bound to fail from the outset. After all, the ESWG and the initiative generally consisted of a collection of extension staff with a common identity in NRM who felt under threat and perceived a risk of being spread too thinly across DNR&M
business groups, ultimately being rendered illegitimate, leading to their extinction. Management may have viewed as a ‘small risk’ the fact that this group came together defensively to instigate processes preventing their extinction. The endorsement of medium and low seniority staff to oversee this strategy process may be a telling sign. Also, management’s lack of leadership in ensuring the ESWG consisted of individuals with a high status in extension circles may also indicate low levels of enthusiasm and a lack of willingness to take the strategy seriously. Also, as the ESWG became somewhat overambitious, attempting to take over the whole organisation claiming that ‘everything is extension’, it is understandable that senior management used their position of power to delay and shelve the strategy. They might have been waiting for this burst of energy to ‘blow over’ and abate through time, and their reluctance to provide serious feedback may be testament to this.

If, in fact, this was the reasoning beneath New Extension’s failure to gain organisational legitimacy, it could be deduced that the ESWG should have taken a different approach to developing the strategy. Arguably the ESWG was naïve in assuming that the Director General’s endorsement provided an open mandate and organisational support for outcomes. The ESWG was even more naïve in assuming that the participatory-learning discourse that guided the group’s actions would lead to collective agreement on New Extension principles, agency-wide implementation and consequent changed practices. The ESWG’s approach, relying on ‘learning’ and ‘participation’ as the primary tools for achieving changed understandings and practices seemed to be fundamentally flawed. Although this participatory learning approach mirrored contemporary organisational and extension change processes, it certainly did not enable the ESWG to anticipate and deal with power, hidden and/or conflicting agendas and the vagaries of organisational hierarchies. It particularly did not help the ESWG deal with the fact that the ways in which staff communicate, let alone view the NRM world and their place in it, are practically and philosophically different and often contested.

Interestingly, the parallel processes of capacity building (above) and an aligned project dubbed ‘Community Based NRM’ along with a further project targeting a ‘Compliance Strategy’ for DNR&M, while all appearing at the time to overlap and compete with New Extension, seemingly suffered the same fate of non-endorsement (and non-implementation). In the short term, at least, it seemed that these other initiatives may have been plagued with similar shortcomings. It was interesting to reflect that the New Extension experience, although it was stalled, was by no means an isolated case of failure. There seemed to be an abundance of participatory organisational initiatives in DNR&M that gained a profile and level of interest only to smothered, abandoned or shelved. Successful plans and strategies that were adopted within DNR&M at this time were related to natural resource administration and regulation functions.

3.6.3. Failing to balance inclusiveness and maintain a clear focus

Within the ESWG, it had not been readily apparent that wider ownership of the ‘paradigm shift’ the group experienced was lacking across the wider Department. A limitation was the poor inclusion of others at critical times as the New Extension Framework emerged (particularly after ‘the lock up’). The enthusiasm among ESWG members, especially when separate threads of information were debated and re-constructed into clearer understandings, was not readily transmitted to other key stakeholders. The ESWG simply did not see the need,

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56 My reflections three years later
or even know how to include wider circles of DNR&M staff in experiences to refocus appreciations of how extension can add value to the achievement of NRM outcomes.

The ESWG pre-empted the issue that ‘New Extension’ proposed radical changes for DNR&M by presuming that professional staff had the capacity to change and adapt themselves simply through learning. In retrospect, this turned out to be an incorrect assumption with few, if indeed any, staff communicating with the ESWG and seriously considering their personal workplans in the context of New Extension. Over time, it seemed that the re-adaptation and application of New Extension’s philosophy and principles to DNR&M business were not going to happen voluntarily.

A further reflection regarding ESWG member interactions with the DDG NRS was that perhaps we would have been more effective taking a more collaborative, or even accommodative route to the repositioning of extension within DNR&M. Many of our interactions may have been viewed by some stakeholders as a positional stance by extension practitioners to legitimise the role and function of extension for NRM. Mary later reflected, “Those in Extension may be seen as a quite exclusive bunch”.

### 3.7 Summary: Finding the way forward collectively

Clearly, there is an expressed need for effective decision-making approaches and processes to deal with the fundamental divisions and differences that continue to plague extension in Queensland. The difference between what is ‘espoused’ and the ‘actions’ that are actually taken indicate that the decision-making system for coordinating extension across Queensland Government has serious issues. Coutts et al. (2004) observe a ‘disconnect’ also at the national level where rural and regional people come under a number of agencies and funding bodies, with each continuing to relate with them individually. They see much scope for collaboration and cooperation to minimize duplication, maximise complementarity, and provide consistent messages, as well as ensuring that a range of effective learning and decision-making platforms are in place.

For those familiar with the extension and the education sectors across Australia, an element of scepticism prevails: the ‘politics’ of extension always seems to get in the way of progress. This Chapter illustrates that those who are actually supportive of extension and who try to use extension approaches when seeking endorsement (e.g. adoption through learning) appear to frustrate or thwart their own intention or interests. Some argue that extension is quite different to education in this respect because it seems that the education sector successfully uses political processes to convince the political masters (Cameron pers.comm.). Perhaps support for extension would be more effective if extension stakeholders could interact interdependently rather than in isolation of each other, and identify extension needs together with political stakeholders.

Emerging from the discussion so far is the argument that extension is not well integrated within Queensland Government, nor is it responsive to the broadening focus of NRM and community engagement (see Chapter 2). It seems that a key issue from this is in relation to how decision-making takes place, or indeed how the role and function of extension in NRM (in relation to other change mechanisms and instruments) is decided. Different ‘traditions’ or

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57 My reflections three years later
‘disciplines’ exist, all with well-meaning intentions, but how they interact to deliver coordinated change processes in NRM is unclear.

While this could be simply viewed as an organisational change dilemma or phenomena, my experience suggests that the issue is somewhat deeper. The notions of NRM decision-making are somehow more intrinsic to the human condition, and are fundamental to our interdependent relationships with one another in striving to balance lifestyle and economic needs with environmental sustainability. New Extension demonstrated that (organised and facilitated) participatory learning interventions may not be sufficient for institutional stakeholders to effectively grapple with and collectively contest the necessary attributes of NRM extension.

In the following Chapter, the differences and conflict from the New Extension process as well as the crises for extension mentioned in Chapter 2 are considered in literature with a view to formulating a conceptual framework and methodology for this action research journey exploring the barriers and opportunities for NRM extension.
Chapter 4: Building a research methodology for investigating and institutionalising NRM extension

This chapter builds on the conclusions from the New Extension strategy in DNR&M, and the past, present and future context in which extension services are used to achieve improved NRM practices in Queensland. It begins with a description of how my substantive role in Queensland Government interfaces with the line of inquiry in this research. Following this a conceptual framework and methodological approach for investigating the role of negotiation in institutionalising NRM extension is presented.

4.1 Adaptive research: Mixing action research and full-time work

This research project was incorporated into my full-time work role as a public servant in DNR&M, working in the Community Education and Extension Support group (1999-2003), the Community and Landscape Science group (2003-2006) and then with South East Queensland Catchments (2007-2010)\(^{58}\). I have had to balance the research line of inquiry with the changing directions of my position and the vagaries of political priorities and public sector policies at the ‘meta-level’ within DNR&M management, and amid the ‘micro-level’ personalities and agendas within my work-group. I have been supported, in principle at least, to conduct the research, but with the requirement that it falls within my position’s substantive role and objectives. This made the development of a research proposal, complete with a conceptual framework and methodological plan, quite challenging.

Consequent to considering Swepson’s (1999, 2000) position on ‘action research’ (see section 4.5.3 below), I resolved to conduct the research in an adaptive manner as a learning journey and to mould the methodology to ‘research episodes’ encountered in my work. Thus, rather than dealing with the limiting tension of selecting cases that fit with a fixed methodology and thereby potentially foregoing the rich array of perspectives, I investigated the opportunities and changing contexts that I interact with on a daily basis. Therefore, all my work became my research and the thesis records this as a series of episodes over the space of five years punctuated with three theoretical intervals (or intermezzos).

Notwithstanding the adaptive nature of this journey, a level of comparability is required across the different research ‘episodes’ in order to effectively draw conclusions on the institutionalisation of extension for NRM in Queensland. A core of methodological concepts and tools, as well as a conceptual framework in which to position the research is essential. In the following section, reflections on the ‘non-result’ from negotiating New Extension in DNR&M leads into a description of these core components and the conceptual framework surrounding the whole study.

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\(^{58}\) At the time of completing this thesis I work with SEQ Catchments and manage the Property Planning service within the company. The earlier research was conducted in the context of an NRM science and policy institutional environment whereas the latter phases were finalised within an NRM extension delivery environment.
4.2 So what were we trying to institutionalise?

4.2.1 Embedding New Extension in DNR&M
The ESWG (Extension Strategy Working Group) had discussed and anticipated that the charter of the New Extension Implementation Team would be to help operationalise the New Extension Framework’s principles and philosophy, applying and modelling those very principles in a reflexive (critically reflective and responsive) implementation process. The ESWG projected that this team would implement and apply New Extension’s approach through a participatory process of engaging with DNR&M staff and other stakeholders to influence their learning and understanding of the New Extension principles, philosophies and re-define individual and group approaches to doing NRM business. Key philosophies and processes advocated by the New Extension Framework included:

- A holistic approach to ‘doing NRM business’ that recognises government as only one source of expertise and capacity in managing our natural resources.
- Systems thinking and holistic approaches – considering the wide social, ecological and economic dimensions of the purpose and function of extension
- Integration and collaboration on initiatives, projects and proposals
- Valued client partnerships and relationship building
- Inclusiveness, joint participation and learning
- Working with constant change
- Leadership, accountability and client service
- Investing in people’s skills, knowledge and willingness to contribute.
- Independence and fairness – supporting the self esteem and experience of people and regarding individual input in an equitable manner (pluralism?)
- Problem solving – purposefully developing understanding and knowledge in order to develop solutions
- Improvement – using a philosophy of continuous improvement, to evolve continuously, improving with an ongoing purpose
- Facilitation – enabling the effective participation, decision making and contribution of all stakeholders through group processes.
- Social development – involving people in a manner that considers them as unique social beings that will benefit from working with other people (adapted from DNR&M 2000, Leach 2000)

These New Extension core principles and philosophies were to be institutionalised within DNR&M business practice. As standalone concepts, the ESWG recognised that these philosophies and principles were quite nebulous. Implementation was projected as an interactive learning process whereby these and other emergent principles would be manifest by DNR&M staff themselves in business planning, workforce planning and service delivery, thus embedding and internalising New Extension. An inductive approach was preferred rather than imposing extension as another discipline. The ESWG saw the framework being applied through everyday work interactions, thereby developing stakeholders’ capacities to improve their practice and the way DNR&M staff interact with internal and external stakeholders to achieve effective outcomes. The intended route to enabling change was through experiential learning, in pilot projects, through regional teams, training, case studies and participatory ‘extension policy’ development.

From January 2001 the implementation plan was taking shape with agreed tasks including: Meeting with Science Coordinators, Renewing Website information, Preparing a ‘New Extension Kit’; Completing Action Learning processes; Publishing a ‘New Extension’
Training Paper; Meeting with the Landcare and Catchment Management Council, and; Meeting with Industry (Queensland Farmers Federation and Agforce). All of these tasks were completed by May 2001. Further task that were initiated, but not completed included: Contacting Regional Extension Teams to initiate Pilot Projects; Interacting with Regional Services Boards to develop a New Extension Arrangements paper; Reconvening the New Extension Reference Group; Establishing links with Local Government, and; Developing business group specific Extension Frameworks (e.g. Vegetation Management).

4.2.2 Organisational barriers: Encountering different paradigms
Later in 2001 a more rigorous implementation plan, was completed which included desired outcomes, actions to be delivered, and performance indicators. It is interesting to note that those tasks not implemented were those that required skills in dealing with power, different paradigms (with different interpretations and perceptions of extension), different NRM interests and particular personal agendas. Of particular interest here is the Vegetation Management Extension Framework (VMEF), where a number of Vegetation Management Officers from around Queensland travelled to Brisbane several times to prepare a specific version of New Extension applied to vegetation management. Although the VMEF required a substantial investment of time and resources to complete, at the end of the exercise it was not used by the Vegetation Management Unit. The reasons why it was abandoned were not made clear. From an ESWG (or implementation) position, the project officer and myself were remiss, in hindsight, in not investigating why. At the time, however, we had neither the capacity nor method to negotiate this ‘non-application’ further.

In addition to New Extension’s non-result at management levels (as detailed in Chapter 3), VMEF outcomes and impediments with other major initiatives, the implementation of this framework began to encounter underlying impediments as DNR&M staff across the department were challenged to question, evaluate and redesign their approach to working with internal and external clients, and doing NRM business. Throughout the strategy development process, it was evident that many different approaches and paradigms for doing NRM business existed across the department. The focus on developing and discussing perspectives and ideals had revolved to challenges of questioning principles of the ‘self’, colleagues, clients and stakeholders, and reconciling these against those embedded in the National Extension Framework.

A dilemma for the implementation of New Extension that had developed was ‘how to effectively operationalise negotiations amongst different paradigms and approaches to doing NRM business?’ This was emerging as a crucial need for the effective application, critical review and improvement of extension practice in DNR&M.
4.3 Towards a theoretical and conceptual framework relevant for institutionalising NRM extension

4.3.1 Moving to focus on negotiation
My own conclusions (as implied in Chapters 2 and 3), and contact with a number of colleagues and my reading in early 2001 of an article by Cees Leeuwis (2000), prompted me to consider an effective means to negotiate the way forward with New Extension. It appeared to me a paradox that while enthusiasm for considering and planning effective extension approaches for working with the NRM environment had been high, the capacity and will for carrying it out was alarmingly low. It seemed that organising and using some type of ‘participatory negotiation practice’ may be a potential means for dealing with diversity and conflicting values, beliefs, paradigms and knowledge systems to further identify and implement NRM extension.

On first investigations of the literature, there appeared to be little recorded about how negotiation processes might advance extension philosophy, policy and practice across diverse business units in a public organisation. This prompted me to explore the issue in a refereed paper for the Australasian Pacific Extension Network (APEN) International Extension Conference in 2001. The intent of the paper was to review and conceptualise approaches for working with different institutional paradigms to negotiate extension philosophy, policy and practice. The next section begins with extracts from this paper and is followed by later theoretical investigations along the path to building a conceptual framework for this research.

4.3.2 Negotiating the institutionalisation of New Extension in DNR&M
The ESWG had come to recognise that the potential charter for extension in natural resource management was enormous: “to support and enable chosen and unchosen change in how all members of global society interact with the environment as we strive for a sustainable environment and future” (DNR&M 2000). The ESWG moved to realise this charter, as implementation of the New Extension Framework across DNR&M got underway at the end of 2000. It was not long, however, before the complexities of perception, knowledge, power and philosophy came into play and delayed progress. The ESWG had hit a ‘negotiation threshold’.

Early 2001 I began exploring the concept of negotiation in participatory practice pre-empting the further difficulties ESWG would encounter. The line of inquiry targeted theory and concepts focusing on negotiation among different philosophies and paradigms for facilitating change. But first a look at ESWG perceptions of the negotiation task at hand, and the levels and roles that negotiation might play.

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59 The term negotiate is used here following the Oxford and Webster Dictionary definition: To confer (with another or others) in order to come to terms, or reach an agreement: Oxford Dictionary, Webster’s Dictionary – See: http://dictionary.reference.com/
60 This section is comprised of adapted excerpts from: Leach, G. 2001, Advancing negotiation in extension practice to better enable chosen and unchosen change: Negotiating New Extension in the Department of Natural Resources and Mines, Refereed Proceedings from Australasian Pacific Extension Network (APEN) International Conference, Toowoomba. www.apen.org.au
4.3.3 Three needs for negotiation

It had become apparent that to institutionalise New Extension in DNR&M, and indeed for New Extension to play its part in the NRM change agenda, there were three distinct areas where effective negotiation processes needed to be improved:

1. Working with power and influencers
   The ESWG received proactive support from different levels of power in DNR&M, mostly staff in Brisbane (Head Office) through the development phase. In early phases of implementation, however, communication with these people saw an apparent change in perspective. Questions arose such as; where is it going to sit, what are the reporting relationships, where does it belong in the department, and how does this affect my group? Effective negotiations were necessary to resolve these dilemmas.

2. Working with operational staff
   Likewise the ESWG found operational staff challenged to move into a phase of questioning, evaluating and redesigning their approach to working with internal and external clients, and doing NRM business. The focus moved to supporting negotiation with staff members’ own personal practice and belief systems, in interactions with colleagues, with clients and stakeholders.

3. Working with community clients
   The ESWG recognised that extension had a role to play alongside other DNR&M activities and services in dealing with the issues of increasing population pressures, limited natural resources, access rights and contested resource use. Enabling conflicting stakeholders to reach negotiated outcomes, give things up, or change their practice (often against their will) is crucial for NRM sustainability. Therefore, in these situations, effective negotiations are necessary for turning these (multi-party) dilemmas into win-win possibilities.

The ESWG supported my investigations into negotiation theory and practice to progress implementation, however, the core principles of New Extension (above) were an important context for this. Explicit agreement within the ESWG was that “DNR&M aims to work proactively and effectively with clients through solving emerging issues in a positive and collaborative manner thus minimising the need for dealing with open conflict situations” (DNR&M 2001, Ham pers.comm.). Therefore, my investigations supported ESWG’s use of negotiation as a positive and proactive approach to conflict resolution, a communication process in which people try to work out their conflicts in a peaceful way using conflict resolution techniques (Anon 2001). Negotiation was also investigated, not as an exclusive approach, but as one process of conflict resolution, with other processes also needed to resolve conflict (Anon 2000).

Following is my investigation into the dilemmas the ESWG was facing including the role of negotiation in dealing with conflict, participation and paradigms.

4.3.4 Working with conflict

Arguably, conflict is a natural process created by the infinite differences that are inherent in us as individuals, or as groups in cultures and society. Each person has a different experience with conflict during their life with most people having learned, or been taught, to avoid dealing with conflict. Importantly, though, conflict cannot be resolved if the parties involved refuse confrontation (Chadwick 2001). On closer investigation of conflictual experiences,
Chadwick suggests that most people find conflict is neither good or bad, but a normal, healthy part of our lives and has intrinsic benefits. Conflict;
- is an opportunity for growth, change and leads to progress
- leads to better decision-making
- makes people able to shift their paradigm
- is a fact of life and is usually resolvable
- enables us to create and refine beliefs, values, and behaviours (Chadwick 2001).

Following this logic, we cannot escape the certainty of conflict, but that confronting it requires an element of risk.

Conflict arises because of our growth, our adapted beliefs and values and we inevitably confront again and again. We can be willing to risk confronting. We are uneasy, uncertain and anxious, but want to grow, to learn from each other, from each experience. This requires a willingness to be aware of when to risk. It requires being the one to "start" the conflict by confronting it (Chadwick 2001:47).

Many responses to NRM conflicts have been to increase effort devoted to resource planning or revise central policies dealing with natural resource management, rather than confront the conflict itself. The emphasis tends to be on technocratic solutions that establish rules for allocation of resources between conflicting uses. Although these efforts at conflict avoidance are sometimes useful, they are often unsuccessful (and may even be counterproductive) (Leach 2001). Yet, fundamentally, key players participating in resource conflict situations usually want to resolve them, because the uncertainties surrounding unresolved conflicts increase everyone's commercial and livelihood risks (Tyler 2001). But how might we approach conflict in another way?

4.3.5 Reconceptualising conflict within interactive processes

Following Leeuwis (2000) (also Pretty 1999), it can be acknowledged that ‘participation’ has become a widely advocated methodological principle in the quest for sustainable rural development. An implicit assumption is that social learning will provide stakeholders and those intervening with a better, or a more widely-shared understanding of the situation. This assumption goes on to identify a lack of collective knowledge and skills as key obstacles to comprehensive change and development in situations where participatory methodologies are applicable.

Leeuwis admonishes that conceptually, a key problem lies in the way social conflict and struggle over resources is dealt with in participatory change processes. His reasoning goes to philosophy and traces back to Habermas’s (1981) notion of communicative action, as distinguished from instrumental and strategic action:

- Instrumental action, according to Habermas, is behaviour that involves following technical prescriptions, based on nomological knowledge, in order to achieve certain previously defined goals (Habermas 1981:385).
- Strategic action is still oriented towards the realization of specific goals, but the actor recognizes other actors as equally strategic opponents, rather than as ‘objects’ that obey certain nomological rules.
- Communicative action (based on communicative rationality), occurs when actors aim at reaching agreement or consensus on a shared definition of the situation as a basis
Leeuwis sees that achieving change through current participatory practice remains rather problematic and identifies a range of issues, including:

- Participatory approaches are mainly geared towards changing cognition (through learning), assuming that this will lead to changes in social practice. Social practices and interests shape perceptions as much as the other way around (Aarts 1998 in Leeuwis 2000:940). Moreover by focusing on cognitive processes as an entry point for inducing change, participatory methodologies may disregard social practices and interests that may actually help to change practices.

- There is doubt regarding the assumption that underlies the social learning model, ‘that the motor for future societal progress is consensus and shared understanding’. Much evidence shows this is only partly true, because effective consensus among some (leading to ‘their progress’) is often based on conflict, competition and the progress of others.

- The success of a social learning approach based on the idea of communicative action (much contemporary participatory practice) is debatable. In natural resource over-use examples, the problem with a social learning approach boils down to the following: (1) there is a problem because people do not act in the collective interest (in a communicatively rational manner), but act following self-interest (in a strategic mode); (2) as a solution, they must engage in a process of communicative action (facilitated by a third party), so that they can act in a communicatively rational manner in the future. The solution proposed negates the problem.

- Negotiation theory and tools are largely omitted from participatory practice (adapted from Leeuwis 2000:939).

From case-study research, Leeuwis (2000) claims that conflict is often an integral component of participatory development processes, regardless of their specific purpose (NRM, community development, technology design). He presents a number of cases that show little evidence of a “lack of stakeholders’ learning and communication” as the central reason for disappointing outcomes, or the key to achieving better ones. Instead, they show stakeholders are unable and/or unwilling to take other stakeholders’ viewpoints and interests seriously (Leeuwis 2000). Leeuwis concludes that social learning and decision-making models fail to resolve conflicts and provide an insufficient basis for organizing viable participatory processes. His proposed solution is to organize participatory interactions as negotiation processes, in order to be better able to deal with conflict situations.

**Suggestions for participatory negotiation approaches**

Borrini-Feyerabend et al. (2000) maintain that NRM processes need to focus on the negotiations among institutional actors that are at the heart of natural resources co-management. They believe that institutional NRM actors need to meet and discuss issues of common concern and suggest that these negotiations need:
Informed and organised institutional actors
A discussion forum, a set of suggested rules and procedures, and a preliminary schedule of meetings and events
Professional support on hand to facilitate the negotiation meetings and mediate conflicts, if necessary
Moves to facilitate agreement on rules and procedures of negotiation among participating actors
Substantive issues of relevance to the institutional actors need to be part of the agenda as well as the lofty goals commonly associated with holistic NRM
Convenors could include some respected local authorities and personalities
The presence of a facilitator would be useful, and should be announced in advance (Borrini-Feyerabend et al. 2000:36)

Moreover, Borrini-Feyerabend et al. (2000) propose an important set of rules for the negotiation process, e.g:

- All main institutional actors should be present in the meetings (via representatives)
- Participation is voluntary, but non-attendance is taken as disinterest in decision-making
- If a quorum is not present the meeting should be adjourned
- Language should always be respectful with agreement not to interrupt the speaker
- All agree to talk only on the basis of personal experience and/or concrete, verifiable facts
- All agree not to put forth the opinions of non-attendees
- Consensus is to be reached on all decisions avoiding voting which often assures an unhappy minority
- “Observers” are welcome to attend all negotiation meetings. Decisions to allow closed meetings should be taken by institutional actors themselves, not by representatives (adapted from Borrini-Feyerabend et al. 2000: 38–39).

My key contention is, however, that these ‘rules’ themselves are necessarily group specific and the subject of negotiation. Van Meegeren and Leeuwis (in Leeuwis 1999) stop short of rules, but build on the literature on the elements of negotiation (from Huguenin, 1994; Susskind and Cruikshank, 1987; van der Veen and Glasbergen, 1992) to identify a number of tasks for facilitating negotiations. The tasks proposed are based on the idea that a participatory process can be organized along the lines of a negotiation process:

These considerations, rules and tasks begin to form a framework for thinking about participatory negotiation processes, both internal and external to the institutional setting. A key question is ‘when do such considerations come into play?’
Task 1: Preparation
- exploratory analysis of conflicts, problems, relations, practices, etc. in historical perspective;
- selecting participants;
- securing participation by stakeholders;
- establishing relations with the wider policy environment.

Task 2: Agreeing upon a process design and process protocol
- creating an agreed-upon code of conduct and provisional agenda;
- reaching agreement about procedures, methodologies, etc.;
- process management and maintenance of process agreements;
- securing new process agreements as the process unfolds.

Task 3: Joint exploration and situation analysis
- group formation;
- exchanging perspectives, interests, goals;
- analysing problems and interrelations;
- integration of visions into new problem definitions;
- preliminary identification of alternative solutions and `win-win' strategies;
- identification of gaps in knowledge and insight.

Task 4: Joint fact-finding
- developing and implementing action-plans to fill knowledge gaps.

Task 5: Forging agreement
- manoeuvre: clarifying positions, making claims, use of pressure to secure concessions, create and resolve impasses;
- securing agreement on a coherent package of measures and action plans.

Task 6: Communication of representatives with constituencies
- transferring the learning process;
- `ratification' of agreement by constituencies.

Task 7: Monitoring implementation
- implementing the agreements made;
- monitoring progress;
- creating contexts of re-negotiation.

Table 4.1 Tasks to include in participatory negotiation processes (van Meegeren and Leeuwis, in Leeuwis 1999)

When does a negotiation approach apply in participatory practice?
Niels Röling is convinced that the human project can only succeed if social learning about the environment (cognitive learning) is coupled to mechanisms for negotiating agreement about collective action, i.e. consensual approaches of distributive conflict resolution (Röling 1997). Three fundamental conditions must be met before serious negotiations can occur (after Aarts 1998 and Mastenbroek 1997):
1. There must be a divergence of interests;
2. There must be a feeling of mutual interdependence for solving a problematic situation;
3. The key players must be able to communicate with each other.

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61 Leeuwis has since updated this task list (see Leeuwis 2004) however the above formed foundational thinking early in the research journey.
62 Leeuwis updated these fundamental conditions (adding that there needs to be (one or more) legitimate facilitators - see Leeuwis 2004), but I only discovered this later.
**4.3.6 Can a negotiation approach be applied to the implementation of New Extension??**

Reflecting these conditions on NRM scenarios encountered by the ESWG, several types of negotiation processes can be distinguished. In each situation, different requirements are placed on the methodology to enable effective negotiations to occur:

1. A situation where no criteria are met, e.g. regional extension staff who believe in building trust with landholders for knowledge development and are not aware of the problem this causes for NRM regulations, whilst Head Office policy makers who believe in the effectiveness of regulatory instruments but are unaware of regional NRM-landholder relationships

2. A situation where there is shared awareness of serious conflict of interests, but the other two criteria are not met, e.g. long term disagreements between developers and environmentalists

3. A situation where the last two criteria are fulfilled, but conflict is not present, e.g. Landcare groups trying to work with professionals from different agencies to identify the most effective and viable land conservation practices

4. A situation where all of these criteria are fulfilled, e.g. regional Vegetation Management Planning process where landholders and DNR&M staff met in many regions across Queensland to openly address the divergent positions on clearing scrub and forest\(^63\) (adapted from Leach 2001).

Negotiation of New Extension in DNR&M (in 2000-01) appeared to fulfill the fundamental conditions for negotiations (Aarts 1998 and Mastenbroek 1997) introduced above. The range of NRM business portfolios and engagement requirements see that all four types of negotiation processes would be called upon in the implementation of New Extension. DNR&M business groups and staff certainly possessed a divergence of interests, but additionally staff had a wide diversity of paradigms and philosophies on the very nature of NRM business. This impacted on the ability of those from different business groups to communicate with each other in many situations, particularly when the way they think about and understand NRM is quite different. Therefore further investigation was needed into negotiating this divergence (or conflict) of paradigms.

What were the basic conflicts of philosophy, epistemology and paradigms in these New Extension negotiations? The ESWG had identified the disparate business approaches of different DNR&M business groups. These differences were manifest through: a wide variety of customer-client relationship styles; different management styles and approaches to internal group functioning; varied approaches to cross-communication with other business groups, and; contrasting language and communication styles. Moreover, the ESWG agreed that differences are based on: a mixed public sector cultural history; diverse academic backgrounds of different NRM disciplines; a wide spread of business functions (ranging from legal prosecution, to resource administration, to field officers, to action education staff), and; a range of functions from public (free service) to private good (fee for service).

While the ESWG did not investigate these differences further, literature points to concepts such as: paradigms; the nature of knowing and knowledge; the nature of nature; and goals underlying a particular approach to science; interests; values; beliefs, etc. as critical points of

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\(^{63}\) Note: Interestingly, this inclusive process showed much promise in building trust and understanding through open negotiations, however the impatience of senior policy makers influenced a counterproductive result when after intensive engagements across the state, Queensland Government ignored negotiated positions and implemented blanket no-clearing regulations.
leverage for the implementation of complex initiatives such as New Extension. Following is an investigation into negotiating paradigms.

4.3.7 Negotiation of paradigms in NRM
Paradigm conflict is a major element in human conflict that is generally undeveloped and unexplored (Marsh 2000). It seems a key challenge for people is to be able to recognise and understand paradigm differences.

When we can recognize a paradigm in ourselves, how it affects us, and how paradigms bring us together or separate us from our fellow humans and other species, we open the door to life changing possibilities. We can benefit greatly when we are able to use the different paradigms that are on offer to us in diverse people and relationships. With this ability, we can be good scientists, or effective managers able to make appropriate decisions in life. If we acquire this flexibility of perspective we are beginning to recognise and enter the world of “Wisdom” (Anon 1999:1).

As with Niels Röling, Douthwaite believes that the paradigms that different stakeholders operate from should be made explicit rather than implicit or tacit (Douthwaite 2002). This makes sense, particularly when we look, for example, at the long-term efforts of researchers who use each other’s methods, have similar educational backgrounds, quote each other’s work, while remaining largely oblivious to what lies outside their ‘college ’of thought or action (Rogers 1995). This creates ‘invisible colleges’. A further example is described by Kuhn (1970), who indicates that research is “a strenuous and devoted attempt to force nature into the conceptual boxes supplied by professional education” rather than about discovering the unknown. A critical challenge for negotiation in NRM participatory practice is to overcome serious communication difficulties through developing a partnership among people who do not share the same paradigm (e.g. values, attitudes, capacities, ways of working, reference systems, languages) (Allen 2000). I would argue that negotiating paradigm differences amongst institutional NRM stakeholders requires further insights from science, policy and socio-economic domains.

Paradigm negotiation and the philosophy of science
Patterson and Williams (1998) highlight the fact that increasingly, natural resource management is seeing calls for new paradigms. They look to the philosophy of NRM science and the lack of attention to epistemological issues underlying it as cause for concern for several reasons:

- Failure to achieve the stated goals for a discipline may result from a failure to critically examine epistemological assumptions and make necessary changes in methodology (Malm 1993 in Patterson and Williams 1998).
- The philosophical foundations that underlie our approach to science determine our approach to research (Weissinger 1990 in Patterson and Williams 1998). We most often adopt a single traditional model for our work, e.g. “the scientific method” and rarely question the philosophical foundations of what we are doing
- Isolation from other human science disciplines addressing related phenomena may occur.

Patterson and Williams focus on the concept of pluralism, the idea that different scientific paradigms can and should coexist within a field or discipline. The concept of pluralism is based on the recognition that all paradigms have inherent boundaries and limitations which define and limit the domains (types of problems) for which they are applicable. They note that
it is therefore difficult to comprehend, evaluate, and assess the implications of contrasting epistemological positions in natural resource management. The reason is that a framework is lacking for structuring such epistemological negotiations (Patterson and Williams 1998).

**Paradigm negotiation and NRM policy**

Bawden (1999) recognises two quite disparate perspectives on (NRM) policy: (1) policies as those deliberate interventions which are designed to instil the values of those who govern into society at large, and; (2) policies and their actions as artefacts of a process of development and change in the underlying principles and values. Bawden’s claim supports those of Considine (1994) and (Wallace 1997) who maintain that the policy process reflects a synthesis of both the imposed and the emergent in a dynamic interplay between one and the other, with both influenced by their own particular values and beliefs. Importantly, though, Bawden maintains that that the interactions between these two approaches is rarely reflexive, and investigation into how values and beliefs are transformed into social actions or how the detailed characteristics of those values and beliefs become known is not considered. Bawden (1999) suggests that values and beliefs need to be included in the policy process, particularly when significant paradigms (which they reflect) are shifting.

> Australians will need to shift the paradigms which prevail among those concerned with the resource, energy, forestry and agricultural industries, as well as those concerned with rural and community development in general (Bawden 1999:3)

From sources in research, education and extension, Bawden (1999) sees that our collective capacity to deal with change and the complexities of global challenges is actually retrogressing rather than progressing. He argues the need for psychological and philosophical-paradigmatic-transformation to sustain the changes that are needed for moving toward sustainable NRM (and underpinning policy). Bawden sees the way forward as acceptance and adoption of a paradigm that reflects differences in both ontological and epistemological assumptions (Bawden 1999).

**Paradigm negotiation and socio-economic factors**

Steel (2000) points out that most scholars investigating post-industrial society agree that a relatively small number of socio-economic factors have led to the development of conflicting natural resource management paradigms:

1. **Population change:** highly educated and/or skilled younger cohorts leaving rural areas to take up residence in the urban core.
2. **Economic change:** substantial economic decline in the rural sector often leads to a felt imperative to increase natural resource extraction.
3. **Technological change:** technological innovations have led to increased efficiency and productivity in manufacturing industries, in agriculture, and in natural resource extraction/processing industries.
4. **Value change:** individual value structures among social structures have altered (particularly younger generations) such that "higher order" needs (e.g., quality of life) have begun to supplant more fundamental subsistence needs (e.g., material acquisition) as the motivation for much societal behaviour.

He argues that as economic growth and the increasing application of technology to societal factors transforms politics, people call into question previous faith in progress. They question conventional values, and are discovering ever-broader stakeholder needs in NRM dilemmas.
He indicates that there is a need to negotiate difficult trade-offs between deeply felt needs and values (Steel 2000).

### 4.3.8 Negotiation – An emergent New Extension paradigm

From these and many other authors, it can be deduced that the negotiation of existing and emerging paradigms is essential for advancing sustainable NRM. These investigations challenged the ESWG\(^{64}\) to advance the implementation of New Extension with greater emphasis on negotiation approaches in ‘DNR&M the organisation’ as well as in ‘NRM the practice’.

In 2000, the ‘extension paradigm’ was recognised in Queensland as consisting of five domains. Jeff Coutts, then Director of the Rural Extension Centre at the University of Queensland summarised these as:

1. Defining policy needs and priorities
2. Facilitating linkages with formal research
3. Facilitating information exchange and access
4. Facilitating informal research and learning
5. Researching (policy and) RD&E methodologies and processes (Coutts 2000).

Through the New Extension process, however, a sixth domain was emerging that related particularly to extension for NRM outcomes (DNR&M’s core business):

6. Facilitating negotiations in both chosen and unchosen change dilemmas (ie. where individual resource managers and users choose to make practice changes which conflict with legislation and policy, such as water reform or vegetation management) (Leach 2001).

Negotiation was becoming important for two reasons:

- negotiation as a new extension approach
- negotiating the institutionalisation of a new extension approach.

While it may have been accidental that (b) requires similar principles as (a) it was becoming apparent that extension for NRM outcomes required both considerations for the practice and policy support of extension.

### 4.3.9 The call for new paradigms influenced by wicked problems

The abovementioned calls for new NRM paradigms have implications not only for the nature of planning, policy, and management of natural resources, but more fundamentally for the nature and process of science which informs these activities (Patterson and Williams 1998).

Overall, these and similar calls for paradigm change share several common themes:

1. They address management and policy problems rooted, not in natural systems (complex problems), but in social systems and values (wicked problems).
2. They question traditional ideas about what knowledge is, how it is attained, and how it can be used.
3. They also challenge that ‘traditional approaches to science do not always work particularly with respect to problems grounded in social systems.’

---

\(^{64}\) ESWG members provided considerable input into thinking about the negotiation needs of implementing New Extension as well as support and comment regarding the APEN refereed paper.
In identifying some of the common themes challenging current paradigms in NRM, Patterson and Williams (1998) recognise that scientists and planners are encountering a new class of ‘wicked’ problems. These problems have characteristics not amenable to solutions by traditional approaches to science.

Allen and Gould (1986) argue that traditionally science views the world as a set of complex problems. Complex problems occur in systems where interactions among a large number of variables make relationships hard to identify and understand (e.g. managing a landscape to achieve maximum sustainable yield). They see that traditional models of scientific rationality are designed to address these problems. Beyond these complex problems, however, Allen and Gould argue that (NRM) managers are faced with ‘wicked’ problems such as trying to decide how a public-multiuser landscape is to be managed.

Wicked problems have two characteristics that distinguish them from complex problems:
1. There is more than one correct formulation of the problem with ‘problem definition’ in the mind of the beholder(s)
2. Such problems involve groups of variables that may be unique in time and space (adapted from Allen and Gould 1986).

Allen and Gould further argue that wicked problems cannot be resolved through traditional analytical models of science or standardized into general laws. In contrast to independent and fragmented problems, managers manage ‘messes’ - complex and dynamic situations of changing and interdependent problems (Patterson and Williams 1998). Therefore, there is a key divergence between problems that (NRM) managers must address and the problems that scientists (and public administrators and policy analysts) try to answer and the knowledge systems they call upon.

Following Patterson and Williams (1998), experience shows that NRM decision-making processes in Queensland deal with a ‘minefield’ of wicked problems. Arguably these discrepancies must be better understood and overcome (or transcended) in the multi-stakeholder NRM decision-making processes in order to move toward more effectively negotiated outcomes. In the following section, the nature of knowledge and approaches for thinking about wicked problems, their social nature and differences of paradigm are investigated.

4.3.10 Toward a wicked epistemology

Woodhill and Roling (1996) admonish that while as a society we have little or no difficulty in mastering the concepts and jargon of technological change, the same cannot be said for our ability to master the concepts and language required to think deeply about the wicked ‘social-ecological’ predicament we find ourselves in. Maturana and Varela (1987) argue that “at the very core of all the troubles we face today is our very ignorance of knowing”.

In terms of knowing, it is necessary to distinguish between ontology – what is believed to exist, and epistemology – questions about how knowledge can be acquired and validated (Woodhill and Roling 1996). To this, Patterson and Williams (1998) add a third consideration, axiology – the goals underlying a particular approach to science or knowledge. Axiology recognizes that the failure to communicate between epistemologies (e.g. positivist paradigms and interpretivist paradigms) is due to the fact that they do not share the same goals or values (Lexico 2005).
Patterson and Williams (1998) express grave concerns about the lack of attention to the philosophy of NRM science and underlying epistemologies. They maintain that it is difficult to comprehend, evaluate, and assess the implications of contrasting NRM epistemological positions - philosophical assumptions about reality (ontology) and methods used to study reality (epistemology).

Because a rationalist worldview has dominated research in the NRM field, it has often been conducted without explicitly considering underlying ontological commitments. Renewed interest in interpretivist approaches to science has seen an increase in discussions regarding different ontologies. Currently, such discussions are filled with confusion and misunderstanding, particularly with respect to the relationship between ontology and epistemology (Patterson and Williams 1998).

Level 2 – PARADIGMATIC COMMITMENTS (Lauden’s Model)

In support of Laudan’s perspective, Patterson and Williams (1998) propose that different research paradigms can be evaluated according to the internal consistency of their axiology, ontology, and epistemology. Their intention of making paradigmatic commitments explicit is to help researchers choose among alternative approaches. It follows that negotiation and the resolution of conflicting NRM approaches will be more accessible if the paradigm commitments of different actors are more explicit.

Closely aligned with the notion of explicating paradigms is the knowledge that each stakeholder uses to underpin the paradigms they espouse. At stake in negotiations is the risk as to whether knowledge claims are true or false. In order to understand more the nexus of true and false knowledge (i.e. in a negotiation, how do you consider ‘who is right’?), an introduction to epistemological traditions follows.
Epistemology

Epistemology is the branch of philosophy that studies knowledge. It attempts to answer the basic question: what distinguishes true (adequate) knowledge from false (inadequate) knowledge? Practically, this question translates into issues of scientific methodology: how can one develop theories or models that are better than competing theories? (Heylighen 1993). The history of epistemology reveals a clear trend, despite a range of contradictory positions. Overall, the trend has moved from a static, passive view of knowledge towards an increasingly active and adaptive one. Starting from the Greek philosophers, Socrates, Plato, and Aristotle, the Renaissance led towards development of different epistemological positions, including:

<table>
<thead>
<tr>
<th>From 5th century BC</th>
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</thead>
<tbody>
<tr>
<td>1. Universal Ideas or Forms - Knowledge as awareness of absolute</td>
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<table>
<thead>
<tr>
<th>17th to the late 19th century</th>
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<tbody>
<tr>
<td>2. Empiricism - Knowledge as the product of sensory perception</td>
</tr>
<tr>
<td>3. Rationalism - Knowledge as the product of rational reflection</td>
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<tr>
<td>4. Kantian synthesis - Knowledge needs both form (categories of the mind) and matter (the data of sensations) (Wallenmaier 2003)</td>
</tr>
<tr>
<td>5. Pragmatism - Knowledge consists of models that simplify problem-solving. (Heylighen 1993)</td>
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</tbody>
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<table>
<thead>
<tr>
<th>20th Century +</th>
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<tbody>
<tr>
<td>7. Realism - Knowledge can be discovered and/or known (Hunt 1990; Perry and Coote 1994).</td>
</tr>
<tr>
<td>8. Critical theory - No objective or value-neutral knowledge exists for all claims are relative to the values of the researcher (Denzin and Lincoln 1994).</td>
</tr>
<tr>
<td>9. Constructivism – All knowledge is built from scratch by the subject of knowledge, with no 'givens', objective empirical data or facts (Anderson, 1986).</td>
</tr>
<tr>
<td>10. Evolutionary Epistemology - Knowledge is constructed by a subject in order to adapt to their environment in an on-going manner (Heylighen 1993).</td>
</tr>
<tr>
<td>11. Memetics - Knowledge can lose its dependence on any single individual and be exchanged (replicated) from one subject to another (McCauley 2003)</td>
</tr>
</tbody>
</table>

Table 4.2: Summary of philosophers and epistemological positions

Thinking about and researching wicked NRM problems

The focus of this research is on the resolution of wicked NRM problems faced by DNR&M and other stakeholders that are inherently social (institutional) in nature. Therefore primary concern is with the social dimensions of knowledge and of conflicting knowledge systems. From analysis of literature introduced above, there is obviously little consensus on what the study of 'knowledge' comprehends, and what epistemological position is appropriate for different contexts. Epistemologies 1 – 6 (refer to Table 4.2) culminating in positivism are each pursuant of truth and absolutes and are more focussed on the individual. The social nature of this research sees a choice between the goals attributed to more traditional epistemologies of acquiring true beliefs, of having justified or rational beliefs, or of abandoning truth and justification and consider "knowledge" as simply what is believed or institutionalised in a stakeholder community, or context.
Woodhill and Roling (1996) relate four key reasons why realist ontology (positivism) does not adequately stand as an epistemological and ontological basis for knowledge development in social processes (complete with human reason):
1. The human mind does not enter a problem/issue situation with a ‘blank’ slate. Our existing theoretical frameworks and ‘history of ideas’ (and socialisation process\textsuperscript{65}) influence how we observe and interpret problems. Therefore scientific discovery and practice can be considered far from the ‘objective’ ideal
2. Social life is not able to be explained by positivist science in any way comparable to the natural phenomena
3. The resolution of complex human problems is poorly aided by the objectivist and impassionate researcher using reductionist methods
4. A false mask of validity or ‘deception’ is often used to argue the ‘truthful’ or ‘objective’ interests of a particular section (or faction) in deference to others (adapted from Woodhill and Roling 1996).

Based on such arguments, investigating wicked social NRM problems may be better framed within an epistemology that considers the impact of social practices on the truth-values of agents’ beliefs, and identifies the social forces and influences responsible for knowledge production and exchange across social systems and institutions. This rather than attempting to identify an absolute or true answer. Following is an investigation of critical theory, constructivism and memetics in search of an appropriate research epistemology.

**Critical theory**

Critical theory theory pays attention to how cultural institutions dictate what is accepted as true, normal, or acceptable within a culture, offering privilege to some, and marginalizing or denying others. It looks at the mechanics of this process of privilege and marginalisation, often with a focus on the possibility of political action against this process. Nolan (2001) claims that:

> critical theory is always particularly concerned with inquiring into the problems and limitations, the blindness and mistakes, the contradictions and incoherencies, the injustices and inequities in how we as human beings, operating within particular kinds of structures and hierarchies of relations with each other, facilitated and regulated by particular kinds of institutions, engaged in particular kinds of processes and practices, have formed, reformed, and transformed ourselves, each other, and the communities, cultures, societies, and worlds in which we live (Nolan 2001:Section C).

Critical theorists take effort to design a ‘pedagogy of resistance’ within ‘communities of difference’. This entails taking back ‘voice’ and reclaiming the narrative of one’s own as opposed to adapting to the narratives of a dominant majority (Denzin and Lincoln 1994). Due to the emancipatory imperative of critical theory, it is not suited to this research, particularly in light of numerous perspectives in DNR&M and other organisations that see efforts to emancipate the extension discipline quite negatively (Hobson 2002, O’Leary 2002, Letts 2003. Also see Chapter 3). Taking an emancipatory approach to researching extension for NRM may be seen by participants and DNR&M managers (and others) as endeavouring to overturn the ‘oppression of extension’ as an end in itself rather than a means to an end. Notwithstanding these misgivings, the ‘voice’ aspect of critical theory is supported in this

\textsuperscript{65} My addition based on MSc Research: Leach, G. 1997, An investigation in Learning and Planning: The harder we practice the luckier we get, Unpublished thesis – Wageningen University, Netherlands
research (following Denzin and Lincoln (1994)) through employing an Autoethnography methodology and giving voice to NRM extension stakeholders (see Section 4.6.4).

**Constructivism**

Maturana and Varela (1987) suggest that assumptions about knowledge and conceptions of science need to be considered in the light of a critical distinction (or profound dualism) between realist/positivist and constructivist epistemologies. Constructivism is based on recognising the primary importance of language and a shift of emphasis in understanding knowledge from the relationship between subjects and objects (as with positivism) to the relationship between human subjects. Constructivism challenges that what we experience as ‘reality’ and therefore knowledge is to a very large extent constructed by social processes (Woodhill and Röling 1996).

The essence of constructivism is multiple apprehendable realities, which are social and intangible mental constructions of individual persons that are empirically based (Anderson, 1986). Constructivists believe that knowledge is theory-driven, a separation of researcher and research subject/object is not feasible, as is the separation between theory and practice (Mir and Watson 2000). The methodology of critical theory and constructivist paradigms is dialectical, that is, it is focused on an understanding and reconstruction of the beliefs that individual people initially hold, trying to achieve a consensus by still being open to new interpretations as information and sophistication improve (Guba and Lincoln 1994). This dialectic character of constructivism (and critical theory) is highly relevant to studying how NRM stakeholders interact, negotiate and make decisions, and in turn the process support needs required to improve these processes.

As suggested by Heylighen (1993), however, while constructivist approaches may put much more emphasis on the changing and relative character of knowledge, they remain absolutist in the primacy they give to either social consensus or internal coherence. The idea of a correspondence or reflection of external reality is rejected. Because of this lacking connection between models and the things they represent, the danger with constructivism is that it may lead to relativism, the idea that any model constructed by a subject is as good as any other and that there is no way to distinguish adequate or ‘true’ knowledge from inadequate or ‘false’ knowledge.

A distinction can be made between two approaches attempting to avoid such an ‘absolute relativism’:

1. **individual constructivism** - assumes that an individual attempts to reach coherence among the different pieces of knowledge. Constructions inconsistent with other knowledge that the individual has will be rejected and constructions that integrate previously incoherent knowledge will be maintained.

2. **social constructivism** - sees consensus between different subjects as the ultimate criterion to judge knowledge. ‘Truth’ or ‘reality’ will be accorded only to those constructions on which most people of a social group agree (Heylighen 1993)

In this research, both individual and social constructivism are used are critical dialectic tools to frame understandings of ‘extension’ as well as with inquiry processes into how it is negotiated and institutionalised.
Memetics

Dawkins (1976) drew on the basic principle of Darwinian evolution and suggested a parallel theory of memetics’ for the replication of information. He argued that for successful replication, a meme must pass through four stages: 1) assimilation by an individual, implying understanding and acceptance of the message; 2) retention in that individual's memory; 3) expression by the individual in language, behaviour or another form that can be perceived by others; and 4) transmission of the thus created message to one or more other individuals. His proposition was that memes are true replicators, possessing all three properties - replication, variation, selection - needed to spawn a ‘parallel’ Darwinian evolutionary process. In this way, memes, like genes, might be considered as bits of information that either succeed or fail to be copied (Heylighen 1992).

It has been argued that with genetic replication, the copying of memes from one person to another is imperfect. Through much iteration, the population of surviving copies will gradually acquire new properties that tend to make them better suited to succeeding in the ongoing competition to produce progeny (Blackmore 2000).

We may embellish a story, forget a word of the song, adapt an old technology or concoct a new theory out of old ideas. Of all these variations, some go on to be copied many times, whereas others die out (Blackmore 2000:65).

Following social constructivism, memetics focuses on communication and social processes in the development of knowledge. Memetics, however, sees social systems as constructed by knowledge processes more than seeing knowledge as constructed by the social system. Memes are the shared understandings and ambiguities that overlie the social construction of individual reality (Heylighen, 1993). Most memes form the communicative basis of our lives, including languages, political systems, financial institutions, education, science and technology. The risks to thinking memetically might be assigning of teleology (purpose) to a meme, or reifying (treating an abstraction as if it were a real thing).

Arguably, thinking memetically broadens the constructivist’s perspective of the world. Every human becomes a generator for making more memes. Expanding on this concept, within society ‘NRM change’ may be bought about through the copying and re-adaptation of sustainability memes in each individual and in social communities of practice. The generation of new ideas and innovative action is an increasingly necessary part of NRM evolution, however the larger motivator for change is the replication of memetic understandings of ‘sustainable NRM practice’. Likewise, the tradition of transferring (replicating) knowledge through extension service delivery has been dependent on these ‘survival of the fittest principles’ and where the information and knowledge meets real-life needs it will be effectively ‘transferred’. Or in memetic terms, these memes will have the replicator power for copying and adapting for their own survival. Notionally, this may apply to the re-adaptation and replication of the New Extension framework in Queensland’s ‘NRM society’.

My proposal is that these two epistemologies ‘constructivism’ and ‘memetics’ can form a productive dialectic to aid explanation and interpretation of efforts to institutionalise the ‘NRM extension’ meme within DNR&M in Queensland (and conceivably beyond). Constructivism sees knowledge as constructed by individuals and/or society. Memetics sees society and even individuality as byproducts constructed by an ongoing evolution of different fragments of knowledge competing for domination. Considered together as a dialectic of interdependent if not competing epistemologies, constructivism and memetics will help
enable interpretations of meaning for example of ‘how people construct understandings of extension’ as compared to the ‘how the extension meme is exchanged’.

It has been argued that a person’s behaviour does change as a result of what other people think (or their reasoning and interpretation) (Röling 1997). Röling further identifies that we can endeavour to explain such reasoning or intentionality by "creeping into the other's skin". He relates that the sociologist Weber called this "verstehen" in German, i.e., interpretation or hermeneutics. Hermeneutics lends itself well to this combination of approaches to conceptualising and investigating the role of negotiation in institutionalising NRM extension.

**Constructivism and memetics in hermeneutic arenas**

Hermeneutics is concerned with the processes of interpretation and communication of meaning (including hidden meanings) necessary for understanding (Gadamer 1994, Kemerling 2002, Grace 2003). This understanding occurs from interpretations embedded within our linguistic and cultural traditions. Hermeneutical process is often regarded as involving a complex interaction between the interpreting subject and the interpreted object. The task is complicated by the apparent circularity where, in order to 'understand' one must 'foreunderstand', that is, to have a stance, an anticipation and a contextualization (Gadamer 1994). Another explanation is that one cannot understand the meaning of a portion of a work until one understands the whole, even though one cannot understand the whole until one understands the parts (Kemerling 2002). So the interpretation of meaning involves a dialectic movement between text (e.g. memes) and context (e.g. social constructions). This paradox indicates that any act of interpretation occurs through time, with adjustments and modifications being made to one's understanding of both the parts and the whole in a circular manner. Following Heidegger, Gadamer calls this the “hermeneutic circle”: one can only know what one is prepared to know, in the terms that one is prepared to know.

Extending this further, following Giddens and Habermas, social science always involves the interpretation of a world that is always already itself pre-interpreted. This in an attempt to divine meanings within an open-ended mesh of processes wherein the participants themselves are engaged in a self-same process of meaning identification and generation (Cromby 2002). Gadamer argues that understanding of the whole, comprised of a range of components, necessarily encompasses the subjectivity of the one who seeks understanding. Moreover, this very subjectivity is intrinsically embedded in culture and history in ways that may be below the level of conscious awareness. It is this consciousness that gives rise to individual ‘prejudices’ in how understanding is achieved. He further suggests that true communication of meaning occurs in the fusion of ‘prejudice’ among subjects (Gadamer 1976).

Important for this research is the notion that when one recognises that people interpret meaning from a prejudiced position, they are more able to be open to difference and otherness. Furthermore, one’s horizons of understanding expand as aspects of their own prejudices are revealed and challenged (Grace 2003).

We could characterise this research as investigating the interplay of ‘prejudices’ in a number of hermeneutic circles or arenas (Cromby 2002). For example: myself as the researcher in my own ‘hermeneutic arena’ around and about a pre-existing hermeneutic arena created by

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66 Verstehen refers to understanding the meaning of action from the actor's point of view (see: http://bitbucket.icaap.org/dict.pl?term=VERSTEHEN).

67 Removing the postmodern critical stance
the already-existing joint activity of DNR&M staff, that are in turn planning interactive NRM decision-making processes. Within these hermeneutic arenas are many considerations that influence this sense-making process. Issues of interpretation, reflexivity, emotional reactions and transference, realism, relativism, the partiality of perspectives and the subjectivity of myself as researcher as well as participants, are key considerations in attempts to study negotiation practice and NRM extension. When considering this research within hermeneutic arenas, these issues gain particular relevance and force (following Cromby 2002).

This research can be framed within different hermeneutic arenas (see Figure 4.2). For example from the ESWG perspective, different hermeneutic arenas might include:

1. Investigating negotiations in the wider ‘NRM’ arena involving multiple stakeholders and change mechanisms (including extension)
2. Investigating negotiations in the ‘Extension’ arena involving multiple extension practitioners from government, the private sector and community groups
3. Investigating negotiations in ‘NRM Extension’ arena (specifically the ESWG members and close alliances)

Constructivism and Memetics (C&M) in different hermeneutic arenas provides a conceptual framework to aid interpretation, explanation and understanding of goals, meanings and causalities within decision-making processes relating to NRM and/or extension. In this research, the dialectic framework I propose considers the range of individual and social constructions concerning (the negotiation of) NRM extension, alongside the range of NRM extension (and negotiation) memes. The aim is to aid description and understanding of the NRM extension system and its institutionalisation in Queensland (and Australia).

**Investigating strategic and communicative action**

C&M can assist the interpretation and understanding of ‘NRM Extension’ negotiation interactions and their effectiveness. Perhaps, if there is some coherence between the ways in which individuals in a hermeneutic arena construct how they perceive an NRM issue, and the memes that are exchanged relating to this same issue, there may be some possibility of moving toward or opening a ‘communicative space’ (following Habermas 1996). However, if this coherency is non-existent through, for example, misunderstandings or a mismatch between how parties construct knowledge and ‘place memes on the table’, then we might expect a contest of strategic rationality or a non-event. Leeuwis (2000) has reservations about the ability to ever achieve communicative space suggests that the rationale for advocating communicative action is debatable. He provides the following explanation:

> In a typical situation of natural resource over-exploitation, for example, the argument for social learning boils down to the following: (1) there is a problem because people do not act in a communicatively rational manner (in the collective interest), but act in a strategic mode (following self-interest); (2) as a solution, they must engage in a process of communicative action (facilitated by a third party), so that they can act in a communicatively rational manner in the future. The difficulty here is that the solution proposed is in fact a negation of the problem (Leeuwis 2000:6).
With these reservations in mind, however, my quest for effective negotiated outcomes relating to the institutionalisation of NRM extension remains. If we follow Leeuwis’ argument and understand that our limited communicative space is a result of divergent strategic rationalities, we might ask: What negotiation approach enables a combination of memes with multiple actors’ constructed interpretations (e.g. of NRM Extension) and results in an effective outcome? Or more broadly, what memes and social constructions of an NRM paradigm (e.g. New Extension) positively combine to influence sustainable NRM behaviours?

In research episodes following (Chapters 5, 7, 9 and 10), the memes that different actors individually and/or collectively use are investigated, as are the ways in which actors construct individual and social interpretations and understanding of these memes (and thereby react to them and pass them on). The next section presents the aims of this research and the empirical framework it is positioned within.

Figure 4.2: NRM extension negotiations within three example hermeneutic arenas

4.4 The research aim of this study and empirical sources

4.4.1 Research questions
There is little known about how negotiation, as institutionalisation strategy, may be used for advancing decision-making and sustainable Natural Resource Management practices and outcomes given the complex and contested nature of NRM. Or more particularly, negotiation across diverse business units in a public organisation such as DNR&M, a key NRM actor in Queensland. The principal aim of this study is to investigate organisational negotiation practice and consider how diversity in conflicting values, beliefs, paradigms and knowledge systems have impacted on the institutionalisation of extension services for NRM. A further aim is to add value to the extension discipline through identifying roles for negotiation as an extension philosophy and process in DNR&M’s business and community and internal dealings (and then in the Australian extension system).
This research draws from my own experiences in coordinating and participating in projects and activities while working in DNR&M and within the Queensland NRM system. These activities were predominantly in organisational settings rather than with traditional recipients of extension services (such as landholders and/or community stakeholders). The organisational setting has been chosen for this research due to the critical leverage that institutions (including key groups and at times key individuals) have on NRM decision-making processes and the support structures and services they are afforded. This concurs with Dovers (2001) (see Chapter 3) who suggests that while all collective efforts are mediated through institutions, without organisational change we will not move purposefully toward sustainability. This also aligns with Gleeson (2001) who contests that the inappropriate mindsets (or paradigms) of organisational stakeholders are a major impediment to creative approaches to interpreting, and indeed collectively working through NRM dilemmas.

Through 6 research episodes I conducted a learning journey, critically reflecting into how I (as a self-identifying ‘extension practitioner’) work with organisational people and explore their (and my own) approaches to negotiation in NRM projects and initiatives. Also, I conducted a parallel inquiry into how these negotiation processes relate to and support more effective institutionalisation of NRM extension.

**Key Research Question:** “What processes and approaches do people in natural resource management use to negotiate outcomes given the different values and paradigms in the Department and the community, and in what ways can these approaches, when reflected against literature, inform, develop and institutionalise Extension in the Department of Natural Resources & Mines?”

Expanding this, the sub-questions that have underpinned the initial phases of this study are:

1. How do actors construct their understandings of the NRM issue(s) at the centre of a negotiation?
2. What memes are central to and/or are exchanged in these NRM negotiations, and which of them replicate effectively?
3. What is the relationship between how actors construct their understanding of NRM issue(s) and the memes which are central to and/or are exchanged in these NRM negotiations?
4. What theory can be developed on institutional NRM negotiation processes in Queensland?
5. What is extension’s role in supporting institutional NRM negotiation processes?
6. What is the effect of using understandings developed through this research on the institutionalisation of extension?

**4.4.2 Identifying empirical research biases in this study**

This study considers research episodes (introduced in Chapter 2) to progress responses to these questions. It is important to register the fact that I bring 15 years experience (and bias) to bear when considering: which research episodes will be pursued as doctoral research (as opposed to simply everyday work), and; what methodologies will be applied to aid in identifying the research problem(s), collecting information and in drawing conclusions.

In many ways I am seeking to intervene (through research) in the NRM extension system in Queensland (and Australia) in order to re-negotiate the role and place of extension as a ‘non-coercive’ policy instrument and effective long-term measure for achieving responsible NRM behaviours/practices. Therefore, research perspectives overly critical of extension, or that
displace its relevance as an effective policy instrument were not chosen. This is simply because of my belief in the ‘extension discipline’ and personal quest to improve it rather than remove it. Notwithstanding this, however, in each case I intervened as a critically reflective ‘extension practitioner’ and synthesise conclusions through collecting a variety of data sets including, written notes (or field records of meetings, interviews, workshops), email correspondence, project reports, project strategy documents, training conferences and seminars, published books and refereed papers and workshop outputs.

Investigating paradigms within DNR&M

Continuing from the above epistemological discussion, policy, management, planning, compliance, administration or research traditions take the form of different paradigms within DNR&M, and in its interactions with different stakeholders. Aitken (1999) provides the following table to describe the characteristics that divide DNR&M business groups into different paradigm positions. While this table provides a simple comparison between positivist and interpretivist paradigm commitments within the department, a wide gulf can be seen to exist between how DNR&M staff understand and approach NRM. It is arguable that a prerequisite for DNR&M interdisciplinary projects or research is, minimally, an explicit understanding of these paradigm leanings, if different disciplines are to negotiate effective problem definition, actions and approaches to NRM issues.

<table>
<thead>
<tr>
<th></th>
<th>Positivist</th>
<th>Interpretivist</th>
</tr>
</thead>
<tbody>
<tr>
<td>Ontological commitments</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Nature of reality</td>
<td>Objectivist ontologies: maintain the existence of a single, freestanding reality waiting to be discovered</td>
<td>Constructivist ontologies: Maintain that humans actively construct identities, reality, and knowledge</td>
</tr>
<tr>
<td>Nature of human experience</td>
<td>Deterministic ontologies: philosophies that view psychological functioning (e.g satisfaction, aesthetic response, and behaviour) as outcome variables dependent on or caused by isolatable environmental and personal variables</td>
<td>Narrative ontologies: Philosophies that assert human experience is more like an emergent narrative than an outcome predictable on the basis of isolatable antecedent environmental and personal variables.</td>
</tr>
<tr>
<td>Human nature</td>
<td>Information based models of human nature: Those models of human behaviour that treat individuals as rational, analytic, goal-driven information processors</td>
<td>Meaning-based models of human nature: Those models of human behaviour which portray individuals as actively engaged in the construction of meaning as opposed to processing information that exists in the environment</td>
</tr>
</tbody>
</table>

Table 4.3: Comparison of Positivist and Interpretivist Paradigms identified in DNR&M (Adapted from Aitken 1999)
Table 4.4: Comparison of Positivist and Interpretivist Paradigms identified in DNR&M (continued) (Adapted from Aitken 1999)

4.5 Towards a research methodology: Theory for investigating the institutionalisation of NRM extension

Multiple qualitative research methods are used in this research to construct understandings and theory of extension and negotiation approaches that inform NRM extension in the institutional NRM decision-making landscape in Queensland. The qualitative method employed is ‘action inquiry’, an ensemble of action learning, action research and participatory action research. However, before describing the reasoning behind the accepted practices of this mode of inquiry, I wish to underpin the research as a grounded theory development process, discuss why qualitative methods were chosen, and then explore the notion that the very rationality underpinning ‘accepted research practice’ is itself a negotiated reality.

4.5.1 Grounded theory
Grounded theory is an inductive, theory discovery methodology that allows the researcher to develop a theoretical account of the general features of a topic while simultaneously grounding the account in empirical observations or data. The major difference between grounded theory and other methods is its specific approach to theory development – grounded theory suggests that there should be a continuous interplay between data collection and analysis (Myers 1997).

On reflection, the DNR&M extension strategy development process (Chapter 3) closely followed the process of building grounded theory. This was not by design, as the ESWG had planned to draw on rather than build theory, and only retrospectively can its surprising alignment with the steps of grounded theory development be realised. In this section I will endeavour to continue an adapted ‘grounded theory’ approach to developing emergent theory about the role of negotiation practice in institutionalising NRM extension.
Table 4.4 provides an overview of Grounded Theory phases, steps and tests and forms a normative template to order and describe the actions that took place in developing the New Extension Framework, and in successive research episodes.

The ESWG recognised that extension in NRM and DNR&M is a changing philosophy and practice, or a changing theory. It is arguable that the ESWG did reach an agreed point of theoretical saturation in September 2000 with the completion of the New Extension Framework, even if it was not adopted. Events after this date indicate that further theoretical development was required before New Extension might meet the needs of some DNR&M stakeholders. In this light, evolving points of theoretical saturation would be reached through an iterative and staged negotiation process. Grounded theory is necessarily a methodological underpinning for this study, however, due to rapid changes within DNR&M during this research, a developing theoretical base is built progressively in sequential episodes rather than via comparison across case-studies.

Qualitative inquiry is especially powerful as a source of grounded theory, inductively generated theory that is from fieldwork, or rather theory that emerges from the researcher’s observations and interviews in real world situations rather than in the laboratory setting (Patton 2002). Qualitative inquiry is discussed below in balance with quantitative approaches.

4.5.2 Qualitative research – Qualitative inquiry
Following is a brief introduction into why qualitative methodologies are chosen in this research.
While qualitative work is termed by many to be unscientific, exploratory or subjective Patton (2000) and that quantitative research is conducted within a value-free framework of inquiry where emphasis is placed on measurement and analysis of causal relationships between variables (Denzin and Lincoln 2000), the large number of variables involved in this study of extension make quantitative approaches problematic. Following Patton (2000), qualitative research is used in this study to stress the socially constructed nature of the reality of extension stakeholders and seek answers to how their social experiences, along with my own, are created and given meaning. Emphasis is placed on examining the intimate relationship between me as the researcher, the people and situations in the cases that are studied, and the situational constraints that shape the process of inquiry (Patton in Denzin and Lincoln 2000).

Case study research (in 6 episodes) is chosen as empirical inquiry to investigate contemporary phenomenon within the real-life context of extension in Queensland and Australia, especially because the boundaries between the extension phenomenon and its context are not clearly evident (after Yin 1994). Each episode is based on an in-depth investigation of individuals, groups, and/or events to explore causation in order to find underlying principles. These episodes involve in-depth, longitudinal (over a long period of time) examination of events and provide a systematic way of collecting data, analyzing information, and report results. A key aim is for me, the researcher, to gain a clearer understanding of why extension initiatives and events resulted in certain outcomes, and what may become important to investigate more extensively in future research.
<table>
<thead>
<tr>
<th>PHASE</th>
<th>ACTIVITY</th>
<th>RATIONALE</th>
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<tbody>
<tr>
<td><strong>RESEARCH DESIGN PHASE</strong></td>
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<tr>
<td>Step 1</td>
<td>Review of technical literature</td>
<td>Focuses efforts</td>
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<td></td>
<td>Definition of research question</td>
<td>Constrains irrelevant variation and</td>
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<td></td>
<td>Identifying a priori constructs</td>
<td>sharpens external validity</td>
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<tr>
<td>Step 2</td>
<td>Selecting cases</td>
<td>Focuses efforts on theoretically useful events (e.g., those that test and/or extend theory)</td>
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<td>DATA COLLECTION PHASE</td>
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<tr>
<td>Step 3</td>
<td>Develop rigorous data collection protocol</td>
<td>Increases reliability</td>
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<td></td>
<td>Create case study database</td>
<td>Increases construct validity</td>
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<td></td>
<td>Employ multiple data collection methods</td>
<td>Strengthens grounding of theory by</td>
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<td>Qualitative and quantitative data</td>
<td>triangulation of evidence</td>
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<td>Enhances internal validity</td>
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<td>Step 4</td>
<td>Entering the field</td>
<td>-Speeds analysis and reveals</td>
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<td>Overlap data collection and analysis</td>
<td>helpful adjustments to data collection</td>
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<td>Flexible and opportunistic data collection methods</td>
<td>Allows investigators to take advantage of emergent themes and unique case features</td>
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<td>DATA ORDERING PHASE</td>
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<tr>
<td>Step 5</td>
<td>Data ordering</td>
<td>Facilitates easier data analysis. Allows</td>
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<td>Arraying events chronologically</td>
<td>examination of processes</td>
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<td>DATA ANALYSIS PHASE</td>
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<td>Step 6</td>
<td>Analysing data relating to successive episodes</td>
<td>Develop concepts, categories and</td>
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<td>Use selective coding</td>
<td>properties</td>
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<td>Develop connections between a category and its sub-categories</td>
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<td>Integrate categories to build theoretical framework</td>
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<td>All forms of coding enhance internal</td>
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<td></td>
<td></td>
<td>validit’y</td>
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<td>Step 7</td>
<td>Theoretical sampling</td>
<td>Confirms, extends, and sharpens</td>
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<td>Literal and theoretical building across events (go to step 1 until</td>
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<td>theoretical saturation)</td>
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<td>Step 8</td>
<td>Reaching closure</td>
<td>Ends process when marginal</td>
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<td>Theoretical saturation when possible</td>
<td>improvement becomes small</td>
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<tr>
<td>LITERATURE COMPARISON PHASE</td>
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<tr>
<td>Step 9</td>
<td>Compare emergent theory with extant literature</td>
<td>Improves construct definitions, and</td>
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<td>Comparisons with conflicting frameworks</td>
<td>therefore internal validity</td>
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<td>Comparisons with similar frameworks</td>
<td>Also improves external validity by</td>
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<td>establishing the domain to which the</td>
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<td>study's findings can be generalised</td>
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Table 4.5: The Process of Building Grounded Theory based on Successive episodes (adapted from Strauss and Corbin 1990).
The intent of this research, as outlined above, aligns with suggestions from Marshall and Rossman (1995), that qualitative inquiry is consistent with three aims: to explore – understand; to explain – develop, and; to describe – discover. It is my intention to incorporate each of these purposes in discovering the role of negotiation in institutionalising NRM extension. The 3 interconnected, generic activities that define this qualitative research process are:

1. My set of ideas and a framework for thinking about extension based on my 33-43 year old Australian male experiences in the world (theory, ontology)
2. My specification of a set of questions (epistemology)

Following Wadsworth (1997) I am involved with research on people; with people; or for people. I entertain each position: On people – in separate episodes; With people – at varying degrees with people in each interaction, and; For people – as an emergent collaborative learning from each episode’s interaction and the study proper.

**Positioning, politics and ethics of this research**

The researcher can assert ‘taking action’ as part of the intention of the proposed study, assert ‘empowerment’ (the goal of participatory action research) and discuss how the inquiry may create opportunities for empowerment (Marshall and Rossman 1995). It is my intention to interact and collaborate with stakeholders at a range of levels in the NRM system in Queensland (and Australia) with the express purpose of enabling them to (critically) reflect on their own negotiation practice and in turn how this may influence the institutionalisation of NRM extension.

The politics of doing this in my work has been a tension because extension has fallen out of favour with many senior managers in DNR&M as an effective ‘policy instrument’ to support and enable practice change. As a consequence in the first three years of this research much of the research intent has been ‘under the radar’, that is conducted as a personal endeavour. Covert research was a result of seeing the enormous level of support and goodwill generated through the New Extension process marginalised by the senior executive since November 2000. It is only later in the research process that I have developed a level of confidence in ‘tabling’ extension in discussions with DNR&M colleagues.

My approach aligns with Weber’s (1917/1949) distinction between value freedom and value relevance. He writes:

> In the social sciences the stimulus to the posing of scientific problems is in actuality always given by practical ‘questions’. Hence, the very recognition of the existence of a scientific problem coincides personally with the possession of specifically oriented motives and values. Without the investigator’s evaluative ideas, there would be no principle of selection of subject matter and no meaningful knowledge of the concrete reality. Without the investigator’s conviction regarding the significance of particular cultural facts, every attempt to analyse concrete reality is absolutely meaningless. What is really at issue is the intrinsically simple demand that the investigator and teacher should keep unconditionally separate the establishment of empirical facts...and his own political evaluations (Weber 1917, 1949: 61, 82).
So in this light I unashamedly frame my interest and enthusiasm in endeavouring to reposition NRM extension in DNR&M (and if possible nationally) as an effective policy instrument to support NRM practice change interventions. In the same breath, though, I also avow to ‘report the facts’ to the best of my ability.

Ethical concerns important for this research are related to the institutions involved in various research episodes as well as over 150 individuals who are either mentioned or directly implicated in research processes and analyses. Throughout the research, overall ethical concerns have been in alignment with guidelines contained in the National Statement on Ethical Conduct in Human Research, including respect for human beings, research merit and integrity, justice, and beneficence (Australian Government 2007). Also this research has paid heed to guidelines outlined in the Australian Code for the Responsible Conduct of Research, such as maintaining high standards of responsible research in a research environment of intellectual honesty and integrity, and scholarly and scientific rigour. Important for this study is: a respect the truth and the rights of those affected by their research; managing conflicts of interest; adopting methods appropriate for achieving the aims of each research proposal; ensuring safety and security; citing research publications accurately, and; conforming to the policies adopted by their institutions and bodies supporting the research (Australian Government 2007a).

In respect to institutional research ethics, because this research was largely conducted through the course of my duties as an employee of the Queensland Government my responsibility was to abide by the Public Sector Ethics Act 1994 and Public Service Act 1996. The chief concern here related to principles of work performance and personal conduct outlined in the latter Act: “ensuring that the employee’s personal conduct does not reflect adversely on the reputation of the public service” (Queensland Government 1996:27). In line with this, accepted approaches to institutional research ethics (AIR 2001) were examined and I tried to implement my research practices in accord with these principles:

(a) Confidentiality – Clear guidelines about confidentiality issues within institutional research. In the case of DNR&M, all research participants are anonymous in text records through the attribution of pseudonyms and the removal of identifying position details such as job title.

(b) Objectivity –
   ii) Through maintaining an unbiased attitude – Evidence is gathered fairly and accurately for reporting and analysis of different research episodes through incorporation of formal organisational literature and publically accessible texts (e.g. shared DNR&M working documents, shared SELN records, emails). Provision of the draft thesis for scrutiny by key research participants to cross-check for authenticity of accounts, or prejudice in analysis, ensures bias is kept to a minimum.
   iii) By preventing Conflicts of Interest – Personal conflicts of interest when interacting with participants in research episodes or when reporting on events is avoided by ensuring within DNR&M episodes that the research is actually my legitimate work, and is performed through the endorsed duties of my position description. Also, in episodes such as ESWG and SELN (Chapters 9 and 10), all members are provided with my presentation of meeting records and events along with my analyses, in a copy of draft thesis emailed to them. They are invited to contest details they believe are not in the interests of the group or the extension system generally.

(c) Storage and Security – Research data under my control is organised, stored, maintained, analysed, transferred and/or disposed of to reasonably prevent loss, unauthorised access, or divulgence of confidential information. All data used in this research has been stored
electronically on external hard-drives at my personal residence and is not available for access by other parties. As confidential information is not presented in the thesis verbatim, potentially sensitive material is anonymised and until the point of publication, and all correspondence was with academic supervisors and research participants seeking their consent, there has been negligible risk of unauthorised access to damaging facts.

(d) Institutional Confidentiality. – Information about the institutions involved in this study or institutional policy considered to be confidential, are treated in the strictest confidence. Organisational information presented in this thesis is largely publicly available via the internet or through Freedom of Information access (e.g. Queensland Government 2009). Research participants are anonymised in research episodes and organisations (Queensland or other Government departments) or organisational sections are deidentified to the point where actual participants may recognise actual organisational events, but only through inference rather than direct attribution of names or departmental titles. As above, key research participants were emailed the draft thesis and encouraged to cross-check records of events and identify points of risk regarding confidentiality or potentially damaging information.

In respect to research ethics related to the individuals involved in this study, important considerations include:

(a) Voluntary participation – People are not coerced into participating in research. The fact that in most cases participants were not informed at the time that they would be part of a research process poses ethical challenges. In almost every case, participation was completely voluntary, with many research episodes only documented and analysed considerable time after events took place. At the time when I was in contact with many participants, I was simply collecting information to form part of a story that may, or may not have been used for research. Hence it was problematic to inform everyone I was working with that they may be a research participant. This challenge is covered further in Section 4.6.4 in the context of the research methodology employed.

(b) Informed consent – Research participants are fully informed about the procedures and must give their consent to participate. In this study for those extension stakeholders directly named in the text, a formal letter of consent is provided by Professor Frank Vanclay (co-supervisor) seeking consent for materials and narrative records included in the text.

(c) Confidentiality – For non-Queensland Government participants confidentiality was maintained in the research through the use of pseudonyms and removal of positional details (after Trochim and Donnelly 2006).

When seeking informed consent in this study, a draft copy of the thesis was provided to research participants to enable their examination of the text. They are invited to identify areas they feel are erroneous, misrepresented or lacking data. This process enables triangulation of research data and analyses through using multiple observers and respondent validation of the record as a true and accurate description of events.

4.5.3 Contrasting the theory of ‘action research’ and ‘science’ with practice: Applying a negotiated learning approach

In support of recent investigations into the relationship between ‘action research’ and ‘science’ in the institutional context in Queensland (Swepson 2000 below), the approaches I have taken to ‘researching’ negotiation practice and its influence on NRM extension are eclectic and emergent from the respective research settings (each episode). This consists of a
reflexive molding of research practice rather than an adaptation (or retrofit) of prescribed methodologies. Swepson (2000) finds in research programs that good researchers:

1. are explicit about the values that motivate them,
2. appreciate that their research is conducted within a social context,
3. use systematic methods of sampling, data collection and analysis to implement their values and seek disconfirming evidence, and
4. achieve rigour through adaptively matching the relevance of the method of inquiry to the problem situation, rather than trading-off relevance as an inconvenience against rigour when a methodological prescription is modified to meet local circumstances.

Analysing ‘action research’, Swepson (1999, 2000) included a philosophical and ‘in-practice’ contrast between Karl Popper’s and Jurgen Habermas’s theories, comparing the work of Habermas and his assumptions behind action research theory, and the work of Popper with his assumptions behind science theory. Her comparison has implications for this study. The important similarity Swepson finds between both philosophers is the aim to find a basis of truth and certain knowledge that is beyond the limitations of human perceptions and reasoning and beyond the immediate concerns of a particular time and place. To do this, they make prescriptive certain elements of methodology: Popper defines scientific theory as one that is empirically testable and makes prescriptive a method of falsification rather than confirmation, and; Habermas defines rationality as consensus and makes participation a prescriptive element of research. From her in-depth assessment of approaches to planning and implementing research processes, Swepson identified a theory/practice split, in both science and action research. Instead of a split between action research and bio-physical research, she identified a split between theory and practice, in both cases. She concluded that Popper’s and Habermas’s philosophical platforms fail to provide adequate advice for practitioners. Hence the divide between espoused theory and theory in use (Argyris 1985).

Having read Swepson’s (op cit) works early in my research, I concluded that taking a negotiated learning approach to the actual conduct of the research would be more viable than rigid adherence to the rubrics of particular methodologies. In light of the changing responsibilities and opportunities in my substantive role in DNR&M, a fixed methodology would be problematic and not the best measure of legitimacy or rigour.

4.6 Research methodology used in this study

The following table introduces key methodological aspects as a tapestry of approaches taken to collecting data and making sense thereof. Key considerations for Phase 1 and 2 of the research process are outlined above in this chapter. Descriptions of the methodologies chosen and used in Phases 3, 4 and 5 are outlined from Section 4.6.1.
### Research Process

<table>
<thead>
<tr>
<th>Phase 1: The researcher as a multicultural subject</th>
<th>My Methodology / Input</th>
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<tbody>
<tr>
<td>• My research history and traditions</td>
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<tr>
<td>• Conceptions of self and others</td>
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<td>• Ethics and politics of research</td>
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<tr>
<th>Phase 2: Theoretical paradigms and perspectives</th>
<th>My Methodology / Input</th>
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<tr>
<td>• Wicked epistemology</td>
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<td>• Constructivism, hermeneutics</td>
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<td>• Memetics</td>
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<th>Phase 3: Research strategies</th>
<th>My Methodology / Input</th>
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<td>• Case/episode design</td>
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<td>• Action Inquiry/Action Science</td>
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<td>• Ethnography, participant observation</td>
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<tr>
<td>• Reflective practice</td>
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<td>• Grounded theory</td>
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<tr>
<th>Phase 4: Methods of collection and analysis</th>
<th>My Methodology / Input</th>
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<tbody>
<tr>
<td>• Interviewing</td>
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<td>• Forums, workshops, focus groups, note book</td>
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<td>records, artefacts, documents, text analysis</td>
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<tr>
<td>• Autoethnography – applied ethnography</td>
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| Phase 5: The art, practices and politics of      | My Methodology / Input |
| interpretation and presentation                  |                        |
| • Applied research with colleagues and peers    |                        |
| • Writing as interpretation                     |                        |

Table 4.6: The five phases of the research process (Following Denzin and Lincoln 2003)

### 4.6.1 Research episodes: Action inquiry and participatory action research

Research into negotiation in DNR&M is a unique study under an Australian institutional context, which requires a method of empirical enquiry within its real-life context, especially as the boundaries between phenomenon and context are not clearly evident (following Yin 1994). The method proposed for conducting this research is by collecting data and drawing conclusions from successive episodes through action research processes. As above, these episodes follow an adapted grounded theory approach to developing theory. While these episodes are not cases, they draw much from case-study research.

The episodes in this research emphasise detailed contextual analysis of a limited number of events or conditions and their relationships. This study method is used due to its strengths in considering contextual conditions surrounding extension, because these very conditions are highly pertinent to its institutionalisation. Concerns of validity and rigour are overcome through construct validity and triangulation where possible (after Yin 1994) and reflective practice (see below).

As with case studies, the development of separate episodes can be a powerful way of encouraging a reflexive approach to working. The research process involves exploring issues in actual projects and events taking place in DNR&M and the Australian extension system. The episodes are described in the form of a story. The text reflects insights into the dilemmas or problems faced by the actors in the story. Each episode includes key learning points. The learning points are identified within and at the end of autoethnographic narratives (see below) that are told from a personal perspective.
Within these episodes, themselves quite interactive processes, an action inquiry approach has been used. Tripp (2003) identifies:

**Action Inquiry** is an umbrella term for the deliberate use of any kind of a plan, act, describe, review cycle for inquiry into action in a field of practice. Reflective practice, diagnostic practice, action learning, action research and researched action are all kinds of action inquiry (Tripp in Hughes and Seymour-Rolls 2000:1).

My role as leader of most projects described within each research episode has seen the action inquiry process to be quite a challenge, juggling different forms of inquiry (as identified below) and the realities of balancing a leadership role with the somewhat detached role of researcher. Challenging, but fun. Following Habermas (1996), my aim in using participatory action research has been to ‘open communicative space’ and move toward collaborative processes of social learning where a collection of people join together in some way in challenging and changing the practices through which they interact in a shared social world. Action learning, action research and participatory action research are used in a deliberate exploration of the relationships between the realms of the social and the individual. This is in recognition of Habermas’s (1992:26) claim that “no individuation is possible without socialisations, and no socialisation is possible without individuation.” Moreover, that individuals and their social relationships are shaped by this balance between socialisation and individuation in the myriad settings of everyday life (Habermas 1992).

The difference between action/experiential learning, action research and participatory action research may be somewhat semantic for some, however, the following endeavours to distinguish the different approaches used.

**Action Learning** is used in this research to focus on developing the skills of individuals and groups to recognize their current level of knowledge and to seek further information and understanding in order to solve problems (Clark et al. 1999). It is also used as a strategy by which people learn with and from each other as they attempt to identify and then implement solutions to their problems or developmental issues (Hughes and Seymour-Rolls 2001).

**Action Research**, as described by Dick (1999), pursues the dual outcomes of action (or in other words, change) and research (in other words, understanding). He suggests that change is most easily achieved when there is sufficient flexibility and responsiveness, among other conditions, and as the system changes the processes used to change does also. Also that understanding requires the rigour of quality data and interpretation. He claims that eventually, the success of action research depends upon the attitudes of those affected along with their ownership of the plans for achieving something and the emergent outcomes. McTaggart (1999) maintains that ‘action research’ derives from the social sciences and has a focus on: self-reflection; collective self-study of practice; the way language is used; organisation and power in a local situation, and; action to improve things.

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68 Or at least strive toward this somewhat idyllic social reality. My personal position on Habermas (1981) communicative rationality is that in participatory processes, we are rarely afforded the time and social space to move beyond professional levels of trust and defensiveness. Participants may strive for the communicative space, but we are invariably held back by our strategic rationalities and interpersonal tensions. In my view, it is the creative use of these tensions that reaps the most rewards.
Within this study action research has been used in two ways:

**Practical**: Action research is research into current and ongoing practice by practitioners for practitioners. Action and research are combined in a single process that involves repeated cycles of planning, acting, observing reflecting, re-planning and so on (Kemmis and McTaggart 1988).

**Emancipatory**: Action research is a participatory, democratic process concerned with developing practical knowing in pursuit of worthwhile human purposes grounded in a participatory worldview. It seeks to bring together action and reflection, theory and practice, in participation with others, in pursuit of practical solutions to issues of pressing concern to people, and more generally, the flourishing of persons and their communities (Reason and Bradbury 2001:1).

**Participatory Action Research** is important for this research due to its transformational aspect. Participatory action research is used aiming to help people to investigate reality in order to change it, and to change reality in order to investigate it (Fals Borda 1979). Participatory action research is poorly described as an ordered sequence of steps, but is better thought of to involve a spiral of self-reflective cycles such as: Planning a change; Acting and observing the process and consequences of the change; Reflecting on these processes and consequences; and then re-planning, acting and observing, reflecting and so on.

[However] in reality the process may not be as neat as this spiral of self-contained cycles of planning, acting, and observing, and reflecting suggests. The stages overlap, and initial plans quickly become obsolete in the light of learning from experience. In reality the process is likely to be more fluid, open and responsive (McTaggart 1999:240)

Following McTaggart (1999), the criterion of success for the participatory action research process is not whether the steps have been followed faithfully, but the strong and authentic sense of development and evolution of practice(s), understanding of practice, and the situations in which practice takes place. Also important to this research, emphasis is not placed on all steps of the research process being collaborative. Experience has shown that PAR (and/or AL/PR) is frequently a solitary process of systematic self-reflection, even when conceptualised in collaborative terms. Participatory action research is used in this research for investigating, reframing and reconstructing practices that are by their very nature, social (McTaggart 1999), with emergent learnings and theory grounded through interplay amongst participants and reflection against literature (see Section 4.5.1).

### 4.6.2 Reflective practice

Recent innovations in qualitative enquiry emphasise reflexivity. Researchers demonstrate the various biases they bring to their work, the ways in which their literature readings influence the research report, their geographic and historical situatedness, their own investment in the research and the ways in which they have supported or sidelined different points of view (Denzin and Lincoln 2003).

Special attention needs to be given to reflective practice. The whole notion of reflection on my own practice as a route to continuous improvement is in many ways fundamental to the conduct of this research. Throughout this research journey, reflective practice has been a key balance for achieving rigour through action inquiry and qualitative research into negotiation and the institutionalisation of extension.
Donald Schön posed a “dilemma of rigour or relevance” for research epistemology. He calls for new research epistemology for the scholarship of education and learning based on reflection by educators on actions taken in their practice.

On the high ground, manageable problems lend themselves to solution through the use of research-based theory and technique. In the swampy lowlands, problems are messy and confusing and incapable of technical solution. ... the problems of the high ground tend to be relatively unimportant to individuals or to the society at large, however great their technical interest may be, while in the swamp lie the greatest problems of human concern. ... Shall [the practitioner] remain on the high ground where he can solve relatively unimportant problems according to his standards of rigour, or shall he descend to the swamp of important problems where he cannot be rigorous in any way he knows how to describe? (Schön 1995:28)

While I sometimes lament forgetting the mosquito repellent and a good pair of galoshes, I find myself often scrabbling for (theoretical and methodological) traction out in the middle of a very interesting and constantly changing swamp!

The reflective practitioner: reflection-in-action and reflection-on-action

The practitioner allows himself [or herself] ⁶⁹ to experience surprise, puzzlement, or confusion in a situation, which they find uncertain or unique. They reflect on the phenomenon before them, and on the prior understandings that have been implicit in their behaviour. They carry out an experiment that serves to generate both a new understanding of the phenomenon and a change in the situation (Schön 1983:68).

Opposing the dominant ‘technical-rationality’ paradigm (a positivist epistemology), Schön attempted to develop an alternative epistemology of practice in which the knowledge inherent in practice is understood as ‘artful doing’. Notions of reflection-in-action, and reflection-on-action were central to Schön's efforts, aiming to resolve the dilemma of rigour versus relevance confronting practitioners. Reflection-in-action, otherwise described as ‘thinking on our feet’, involves looking to our experiences, connecting with our feelings, and attending to our theories in use. It entails building new understandings to inform our actions in an unfolding situation.

Schön maintains that we test out our ‘theories’, or ‘leading ideas’ and this allows us to develop further responses and actions. Significantly, to do this we do not closely follow established ideas and techniques - textbook schemes. We have to think things through, for every episode is unique. However, we can draw on what has gone before.

When looking at a situation we are influenced by, and use: what has gone before; what might come; our repertoire, and; our frame of reference (Schön 1983).

Even though my own values and beliefs in continuous improvement have become increasingly immutable over the last decade, I know that complacency is a dire risk. I believe that the notion of reflective practice and the reflective practitioner are an essential explicit underpinning epistemology for this research. I will attempt to conduct reflection-on-action and explicitly reflect on my own framing of key issues in each episode as well as those of others.

⁶⁹ My alterations vis-à-vis gender
4.6.3 Participant observation
Patton (2002) suggests that there are limitations to how much can be learned from what people say (a major source of qualitative data), but that direct participation in and observation of the phenomenon of interest may be the best research method in many settings. It has been argued that participant observation is the most comprehensive of all types of research strategies:

[It is] the most complete form of the sociological datum, after all is the form in which the participant observer gathers it, the observation of some social event, the events which precede and follow it, and explanations of its meaning by participants and spectators, before, during and after its occurrence. Such a datum gives us more information about the event under study than data gathered by any other sociological method (Becker and Greer 1970 in Patton 2002:21)

Patton (2002) further explains that data obtained by participant observation permits the researcher to understand a program or treatment to an extent not entirely possible using only the insights of others, most often obtained through interviews. The downside of participant observation is that not everything can be directly observed or experienced. To this can be added the relatively high labour-intensive and high-cost nature of participant observation as a research strategy.

While it may have been a slower and more arduous route to completing this research, I have chosen to maximise the strengths of the ‘in action’ approach of participant observation by making my work my research (as discussed in section 4.1). This thereby minimises the additional financial and time costs normally associated with to data collection and analysis by participant observation.

4.6.4 Autoethnography
As introduced previously, my own practice as leader, coordinator and/or initiator of most of the episodes in this study, is a critical element of this research. Therefore, it is probably fitting that in these different episodes, much of the story, research process, trials and tribulations be told ‘from my frame of reference’, or seen through my eyes. So, I beg for the reader’s permission to do so. Following is a description of autoethnography, a methodology that while extremely challenging makes this method of data presentation and analysis possible.

Montage through autoethnography
Personal experience can be recorded to reflect the flow of thought and meanings that persons (or in this case the researcher) have in their immediate situation. Studying lived experience directly is difficult because language, speech and systems of discourse mediate and define the very experience we attempt to describe. It is not the experience itself that we can study, but the representations of that experience. Through stories we are able to examine what people tell to one another about their experience. These stories may be personal experience narratives, or self-stories made up, or interpretations in action (Denzin 2003 in Denzin and Lincoln 2003).

Ellis and Bochner (in Denzin and Lincoln 2000) argue for use of reflexive personal narratives, where investigators seek means of demonstrating to their audiences their historic and geographical situatedness, their personal investments and agendas in the research, the various biases they bring to the work, their surprises and confusions in the research process, the ways in which their choices of literature and theory lends rhetorical force to the research thesis and
the measures by which they have suppressed or avoided certain points of view (Denzin and Lincoln 2003).

Autoethnography is described by Denzin and Lincoln (2000) as an autobiographical genre of writing and research that displays multiple layers of consciousness, connecting the personal to the cultural. In this reflexive approach, the investigator relinquishes the ‘God’s eye’ view and exposes their work as a historically, personally and culturally situated. The view ranges from the wide-angle ethnographic lens focusing on the outward social and cultural aspects of the researcher’s experience, and then reflect back to the inner self of the researcher that is moved by and may move through, refract and resist cultural interpretations (Denzin and Lincoln 2000). Usually written in the first person voice, autoethnographic texts can appear in a variety of forms. I have chosen in this study to mix personal essays with journal entries as means of describing the concrete action, dialogue, emotion, and self-consciousness within the process of my ‘intervening’ in each of the cases (Chapters 5, 7, 9 and 10).

Precise definitions of autoethnography are problematic with researchers varying their emphasis on the research process (graphy), on culture (ethnos), and on self (auto). Different applications of autoethnography fall along continuums on each of these three axes (Denzin and Lincoln 2000). The distinction between the researcher and the target audience is problematic. In this study I endeavour to use autoethnography as a tool in each case, placing emphasis on the ‘graphy’.

This type of research poses a number of challenges. Firstly, my ability to accurately recount events, conversations and personal as well as participant points of view, while often being directly involved in the facilitation of activities in research episodes is particularly challenging. The approach I take in this study is to take considerable time after an event or activity to draft an autoethnographic record using fresh memories of activities and conversations as well as hard-copy material and computer records at hand. Every effort is made to compile this draft as soon after the event as practicable. This individual draft record is then compiled with further records chronologically as events occur. The full autoethnographic account is then based on a compilation of successive drafts with an overall assessment of the research episode’s activities.

A second challenge is the issue of ethics. While compiling the material for the separate autoethnographic accounts I do not tell people that they are part of research. The primary reason for this is that I strongly believe in most cases this may change how participants interact with me and the ultimate outcome of the activity. The way I deal with this in the research is to anonymise over 130 participants through attributing them with a pseudonym in the text and ensuring positional details do not allow them to be identified. Most anonymised participants were in DNR&M. Depersonalising the text relating to interactions in Queensland Government and with staff on other agencies removes the risk of injury, to these individuals or to the Department. For participants who were major extension stakeholders and were close to core research activities, their names are recorded accurately in the text and they are sent a draft copy of the complete thesis to provide them with right-of-reply. If they agree with the autoethnographic account and how they are portrayed they are asked to acknowledge their consent.

A third challenge is one of overall authenticity, as to whether my description of, and understanding of research events is plausible and a reasonable account that might have been made by another participant. Such a test requires an in-depth and rigorous review of complete
autoethnographic accounts, one that may not be expected of most participants, who at best may only be interested in how they themselves are portrayed in the text. This challenge is overcome in this study through engaging Professor Frank Vanclay as a thesis co-supervisor. His close involvement in at least 2 of the episodes enables him to test for overall authenticity of these autoethnographic accounts, and based on this, to test for plausibility of other episodes.

The autoethnographic accounts are presented in Chapters 5, 7, 9 and 10 using a different font (Ariel) to the remainder of the text (Times New Roman). In this way, all autoethnographic are graphically distinguished from the introductory, contextual and analysis sections of these Chapters.
Chapter 5: Investigating negotiation processes in two institutional NRM initiatives

This chapter considers two research episodes coordinated in DNR&M between June 2002 and June 2003, namely the 'ASAP Natural Resource Information Review', and 'New Extension and Compliance: Barriers at the Interface'.\(^70\) I have included these episodes in one chapter as they were in the same time period and reflect the thinking and research strategies I was employing at this time. Propelled with a drive to conduct action research, I was investigating how institutional stakeholders – labelled as extension practitioners by the new extension framework from Chapter 3 – interact, learn together and influence each other to enable change and achieve individual and mutual objectives. As New Extension moved into a hiatus period from late 2001, I pursued these episodes to investigate barriers to negotiation and organisational change. The conceptual framework for these episodes included the linkage between constructivism and memetics introduced in Chapter 4. Following background contextual information, autoethnographic accounts are presented seeking to understand how a negotiation approach to organisational change can be operationalised with institutional stakeholders, and further, the effects of my interventions as I strive to understand facilitation of multi-stakeholder negotiations.

5.1 Negotiating the natural resource information meme

From September to December 2001, my substantive position provided a three month possibility to contribute organisational, research and facilitation support to an ASAP (Aligning Priorities and Projects, an initiative of Queensland Treasury) exercise within the Natural Resource Information (NRI) environment. This phase was labelled ASAP 2 as it was the second iteration of an earlier scoping phase (or ASAP 1), in which I was not involved. ASAP 1 and ASAP 2 are not reported here as it was concerned with scoping NRI alignment issues. Later, between June and December 2002, I was also contracted to lead ASAP 3 investigations in Mineral House (DNR&M’s head office in Brisbane). The following section outlines the intent and purpose of the ASAP project, then details key ASAP 3 interactions in this multi-stakeholder exercise to negotiate different perspectives on efficiency within the NRI environment. Recounted here are the negotiation approaches and practices of working group representatives from three NRM agencies involved in this project (DNR&M, DPI&F and EPA), and then with other Queensland based NRM information stakeholders.

This episode is relevant to this research as the fundamental rationality underpinning ASAP was concerned with cost reduction, a hotly contested area amongst the base-funded information management ‘fiefdoms’ that exist in the various separate Government agencies. Each information management group was eager for their overall information meme, along with its respective component memes, to survive. Perceived duplication was deemed by Treasury to be an excessive drain on State finances. This provided an ideal situation in which to investigate institutional negotiation approaches in the NRI environment. A further research linkage was NRI’s role as a crucial component of effective NRM extension. Negotiations in this area directly interrelate with delivery of NRM extension services.

\(^70\) Note: Through both of these investigations it became apparent that further conceptual investigation was necessary for further research. This is highlighted in the text.
5.1.1 Understanding the ASAP Natural Resource Information project

ASAP was a Queensland Government initiative with the espoused aim of ensuring that service delivery was meeting community needs, provided value for money, and allowed flexibility in resource allocation. ASAP aimed to: “align the corporate objectives and directions of departments with the strategic outcomes sought by the Government; identify opportunities to realign activities and resources to achieve the Government's outcomes and to improve efficiency; and review departments’ current and planned activities that involve cross agency responsibility to ensure that Government outcomes are effectively achieved” (Queensland Government 2002). Despite the rhetoric, ASAP was commonly discussed amongst contracted staff (such as myself) as a cost cutting exercise. However, the Queensland Cabinet did not quantify ‘efficiency targets’, and thus ASAP staff did not directly investigate cost structures.

The ASAP Stage 2 report submitted to the Cabinet Budget Review Committee (CBRC) in December 2001 recommended that the primary issue in Queensland’s NRI environment was the absence of a whole-of-Government strategic information management framework that articulates roles and relationships within this complex system. Other issues identified were: a lack of knowledge about both the supply of, and demand for information both within agencies and across the Queensland Government; the need for clarity in the area of information property rights, pricing regimes and data custodianship arrangements; the quality of current statistical data sets; and the need for consistent application of information management standards and confidentiality and privacy regulations in relation to information sharing. Importantly, it was recognised that there is a need to improve the recognition of the value of information at all levels of government.

5.1.2 The ASAP 3 NRI project: An overview

Information for Natural Resource Assessment & Planning – ASAP 3

In February 2002 the Cabinet Budget Review Committee (CBRC) approved the recommendations from ASAP 2. CBRC instructed DNR&M to proceed with the ASAP 3 phase through endorsing the establishment of a Working Group under the CEO's Committee for Land and Resources to develop a whole-of-government strategic framework. Further to this, in April 2002, the CBRC confirmed that DNR&M’s ASAP 3 NRI Project be actioned through the Strategic Information Management (SIM) Review, as approved by the Treasurer. The NRI project thereby became one of 16 inter-agency projects in the ASAP SIM Review across Queensland Government.

The six-month ASAP 3 NRI project aimed to address the main recommendation from ASAP 2: “Queensland Government establish a strategic framework to facilitate coordination and collaboration across all stakeholders to achieve efficiencies in natural resource assessment and planning for good decision-making.”

As a component of this overall aim for ‘facilitating coordination and collaboration’ across all Queensland Government agencies, the primary focus of the ASAP 3 NRI project was the development of a whole-of-Government strategic framework for the collection, management and provision of natural resource information. To guide development of this strategic framework, a number of key actions were recommended in the ASAP 2 report:
Key Action 1 – Undertake a comprehensive identification and analysis of current Natural Resource Information practices and initiatives within and across Queensland and Commonwealth Government agencies and other relevant bodies.

Key Action 2 – Identify and clarify the authority, role and functions performed by State Government agencies and other stakeholders in Natural Resource Information activities.

Key Action 3 – Build on existing initiatives to establish a Queensland Natural Resource Monitoring and Reporting System to inform government and the community on the condition and trend of our natural resource asset and inherent environmental values.

Key Action 4 – Develop a Coordinated Data Capture Program for the collection of Natural Resource Information to meet user needs.

Key Action 5 – Improve access to Natural Resource Information through development of the Queensland Spatial Information Infrastructure Strategy (QSIIS) “Data Queensland” proposal.

Key Action 6 – Facilitate “Smart State” Research and Development that will incorporate Natural Resource Information across whole-of-government to benefit decision making in government, industry and the community (Queensland Government 2001:5).

This list outlined improvements needed across the intra and interagency collection, management and accessibility of ‘information for natural resource assessment and planning’. It was an impossible task to undertake in the six months provided. A more achievable recommendation from ASAP 2, however, seemed to be that the current ad hoc project-based procedures be complemented by a strategic approach to data collection and management. With this background, I begin my recount of events.

5.1.3 Autoethnography: My role emerges – Facilitating negotiations in the Natural Resource Information environment

It was the last week in March 2002 and I was wondering what my next steps might be for progressing New Extension. I felt that the last 12 months had been quite unproductive. The ASAP 2 NRI project (September to December 2001) had been a welcome distraction. My reason for being invited into ASAP 2 was apparently due to my reputation from earlier New Extension processes. Information Policy managers believed that I had the capacity to facilitate activities and provide process management support to the project team charged with delivering on ASAP 1 recommendations. ‘Feeling valued’ was encouraging!

I further reflected that while the other ASAP 2 team members had been information management specialists with limited interactive process skills, we got on well and had a lot of fun. Over the short time, the other team members also became aware of my interests in negotiation and extension. Mike Cowper, who led ASAP 2, had strong perspectives on the dysfunctionality of inter-agency processes in the Queensland Government. He smiled ruefully about us working on this project and even remarked: “How can we deal with inefficiencies in this area? Some might say there is counterproductive overlap, but it’s pretty well disguised!” Later that week Mike phoned me. He got straight to the point. “Are you interested in doing anything more with ASAP?” Before I could answer, he went on: “I believe that the ASAP 3 exercise needs to take a different tack. We need to move closer to the cross-agency rivalry and competition for funding, as well as the issues over the proposition to centralise information management in Queensland Government.”

Mike had a long professional history and many relationships in information management. He seemed a bit sceptical of ASAP and said: “You know, the long-term processes of improvement in this environment are often thwarted by the strategic agendas of some players. I know one senior officer who has just left this department had a certain way of
working. He was very strong on his direction and nothing ever seemed to get him to see other perspectives and adjust his line.” 71 Mike went on: “We certainly need to increase our capacity to sort out different agendas. And we have long needed a better framework in which to hold these discussions too. The work we have done on ENRII provides a conceptual framework for dealing with the technical issues of information management, but we also need this bigger framework for decision-making that the ASAP project is working on. Maybe this will bring NRI to the attention of the EMG!” 72 Mike then suggested I coordinate the ASAP 3 stage. He told me, “You will be able to take a stronger focus on the process and the people parts of resolving some of these bigger issues.” Immediately I began to see ASAP 3’s links with negotiation and extension. I accepted Mike’s offer and commenced on 18 June 2002 to progress the implementation of the ‘ambitious’ ASAP 2 recommendations. Prior to starting, Mike asked me to prepare a project plan to outline preliminary thoughts, and even provided me with a template that Information Policy used for all their projects. 73

Preliminary Project Plan
Based on my experiences in ASAP 2 and in considering a limited range of negotiation literature, I began drafting a plan, aiming to engage Mike and Andrew Dent (General Manager for Information Policy). I forwarded them developing drafts endeavouring to capture their attention regarding the consideration of negotiation processes. This inclusiveness influenced both Mike and Andrew to support the continuance of this project as a negotiation process. The following is an excerpt from the project plan Mike and I prepared:

“There is a large and complex history of collection, management and provision of natural resource information in the Queensland Government. Through recent years a wide range of processes and systems have developed to deal with natural resource information. When we also consider the extensive experiences, learnings, individual achievements, and professional identities of staff involved in working with NRM information the environment in which this project rests becomes clearer. Many individuals and groups have developed their preferred place or positions in terms of natural resource information. The introduction of a ‘new’ framework for working with NRM information can implemented through at least three different routes. It can be:
1. Imposed from above
2. Generated from participatory (organic ground-up) developments and alliances
3. Negotiated using a combination of imposition with participatory ground-up development

Given the longer term history, complexity, and different (political) positions of various individuals and groups this project the negotiation option will be more effective than the polarity of direct imposition or ground-up development.

71 Mike recognises that these are wicked problems requiring a different approach. He relegates these types of more socially based issues though, to ‘process people’.
72 The Executive Management Group (EMG) was the most senior executive group in DNR&M. The NRI stakeholders seemed to operate with a particular paradigm where they saw the operations of the department through ‘data managers’ eyes. They spoke to me often about the data, information, knowledge and wisdom continuum and freely discussed their perspective that NRM behaviour revolved around this relationship. They felt this perspective was marginalised in EMG and DNR&M.
73 So I prepared a plan, with the aim of balancing the project with my research needs. This served as a very good means of anchoring the use of negotiation approaches with Mike and Andrew. With this task I found a need to investigate negotiation literature for terminology for the plan, as well as to add to my conceptual framework. Early readings influenced the way in which I communicated with the working group and coloured the language used in interactions.
Working Party Action Plan and Suggested Team Process

First step is to form the working party through a process of interviews with DNR&M, DPI and EPA Information Managers to identify prospective members and secure time commitments. Following are suggested team commitments:

- Plan a 3-5 day Working Party retreat for building relationships, identifying and agreeing upon team process, planning interrelationship with the political and policy environment and planning an action timeline.
- Meet weekly as a team to report and reflect on outcomes and progress actions
- Participate in data collection process through researching information, conducting interviews and coordinating workshops
- Participate in 3 x 3 day Working Party retreats to refine data collection processes, conduct data analysis and plan participatory negotiation workshops
- Participate in negotiation workshops and activities to develop a natural resource information strategic framework
- Report on outcomes and provide recommendations for further development

Suggested Working Party Conceptual Process

The working team perform a research study on participatory negotiation as they progress toward adapting and implementing the ASAP 2 recommendations. The team can use action research-action learning-grounded theory methodologies to organise the negotiation process for development of a strategic natural resource information framework. The objective of the grounded methodology is to discover social processes that explain the resolution of the problem or issue, which confronts people in the substantive area under study (Androupilis and Lowe 2000).

Action Research

Although the project is intentionally adaptive in its approach and is expected to change direction through the course of the activity, the following key group/team milestones are proposed;

- Take time to develop and agree on team purpose and processes
- Use action research approach to plan a negotiation methodology for working with the recommendations of the report. Research negotiation literature to developing this
- Use this developed methodology to progress participatory decision making and action re development of a natural resource information management framework
- Report on progress
- Using grounded theory methodology, build this developed methodology into a theory for negotiating a natural resource information management framework for Queensland

Figure 5.1: Excerpt from Project Proposal: Outlining NRI negotiation approach (Leach 2002).

Mike and Andrew both investigated this project plan. Mike said to me quite encouragingly: “While the approach and thinking seems a little unorthodox, we believe that it is worth a go. And we are certainly interested in seeing how the process unfolds. You guys at Indooroopilly74 have got experience in facilitating these sorts of things.” They supported the proposal in-principle on the proviso that the project be a learning/adaptive process in itself. I was feeling quite positive about what might happen next!75

74 The Natural Resource Sciences Precinct is located at Indooroopilly.
75 Both Andrew and Mike seemed at this point to give space to experimenting with another decision-making methodology (or orthodoxy).
Early Scope: What is included within the ambit of the project? What is not included?
The first step in these negotiations that seemed sensible to both Mike and I was to secure a firm idea on the ‘corporate boundaries’ of the project and the role that we as DNR&M officers were able to play. So we arranged some preliminary discussions with Andrew Dent. In this discussion Andrew warned: “Sure, it might be worth a go, but we always have to be aware of the risks of a short-term project in this area. We don’t want to commit ourselves to too much!” He went on, “The large nature and complexity of this project makes achievement of effective outcomes in a six-month period pretty tough.” He further warned: “This short-term risk threatens the continuation of funding and input into achieving longer-term opportunities in strategic natural resource information management”. We agreed that short-term visibility through achievement of meaningful outcomes was essential.

Andrew was regarded by many to have his finger on the pulse of information management in the Queensland Government. He suggested we diverge a little from the ASAP 2 recommendations in line with this need for short-term visibility. Andrew suggested three key outcomes for indicating progress. He reminded Mike and I, “These are probably more achievable within the six-month timeframe”.

- A list of agreed environmental health indicators for Queensland (informed by other Environmental Indicator Framework projects being coordinated by EPA and others)
- A diagram of relationships and responsibilities among key stakeholders working with Natural Resource Information
- A discussion paper outlining:
  - progress to date
  - linkages with the whole-of-government Strategic Information Framework and
  - recommendations for next steps in the development of a Strategic Framework for the collection, management and provision of Natural Resource Information

In suggesting these targets, Andrew had outlined a boundary within which we could achieve mutual benefits for ASAP and for DNR&M. They also happened to correspond with his own perspective on how NRI would be better recognised and strategically positioned in DNR&M. It was at this point that I thought it would be beneficial to scope a conceptual model of the ASAP NRI project as a negotiation process with Paul Mort (a General Manager in Resource Policy). In so doing, I wished to lodge both the project and my research agendas more firmly within the management of DNR&M. This was intuitive rather than rigorously planned, and in the back of my mind I felt that Paul’s support would pay dividends in the future at an indeterminate time. I spoke about this with Andrew and Mike. They both said, “Go for it!”

Developing method and approach – Scoping a negotiation plan with Paul Mort
Paul had a convincing reputation as a negotiation specialist in DNR&M following his work in multi-stakeholder interactions in the CHRRUP program in Central Queensland. On earlier occasions, I interacted with Paul about my interests in negotiation and extension and I once invited him to help deliver a Resource Lounge on the topic of ‘negotiation in the workplace’.

76 Andrew’s NRI paradigms seem much more strategic and systems based than his colleagues and he was much keener on integrating NRI with other aspects of DNR&M business and service delivery. His approach to adapting the ASAP 2 objectives was quite strategic, demonstrating the strategic rationality present at these levels of management in DNR&M.

77 The Resource Lounge is a recurring forum about relationships in the workplace and I am on the working group that oversees this popular DNR&M series. Paul was very well received in the Resource Lounge and obviously had a very strong level of applied skill and belief in the application of negotiation approaches to DNR&M business.
In scoping the project methodology, I asked Paul: “Can I meet with you for an hour to float a few ideas about a negotiation plan for this NRI project I am coordinating?” He was keen to do this. I really wanted to gauge his approach to thinking of and developing a negotiation plan.

As soon as I arrived in his office (25 June 2002), Paul seemed enthusiastic about the prospect of developing (or proposing) a negotiation plan for the ASAP NRI project. With his inimitable bustle and friendly yet assertive manner, he took charge of the discussion. He was young for his position, a planner by his academic background, and had by repute an enormous capacity to conceptualise and garner the enthusiasm of those around him. Through time, he had become a considerable force in the regionalisation of NRM decision-making and governance processes in Queensland. It was no surprise to me that Paul took the floor and a commanding role in our interaction.

Paul took the white-board marker and immediately divided the board into five columns. It appeared that he had used this approach before. At the left and right extremities, he titled the columns ‘constraints’ and ‘opportunities’, the central column was the ‘negotiation plan’, the column left of centre was the ‘negotiation purpose’, and to the right of centre was the ‘negotiation issue-style relationship’.

“I use this type of format to think at different levels about the interaction and whether on balance the opportunities with using a certain approach outweigh the threats or constraints. It is sure easier to do it on the board and think about all the features and potential hang-ups beforehand rather than get half-way into a big complex negotiation and find that you are at a point of no-return. It’s better to structure and pre-think it,” Paul said.

Starting in the central column, Paul asked me: “What is the entry-point of the negotiation and what are some of the key things that need to be resolved?” I quoted the recommendations from the ASAP 2 He re-interpreted my words and proceeded to fill this column. He continued to question me as he alternated from column to column, somewhat randomly about the different facets of the projected interactions. The matrix began to fill quite rapidly.

As the matrix filled, however, I became increasingly alarmed that Paul’s view of the negotiation process was at a considerably higher level within the NRI system than I had considered.\(^78\) Given his roles at a national level, his view of the NRI system was much more extensive than my own. As a dynamic systems thinker, Paul continually asked: “So who else is involved, who does this impact, and who has influence?” Before long, the negotiation of efficiencies in the Queensland NRI system was being contextualised within a national frame of reference. At this point I said: “Okay Paul, I think that gives us a good basis from which to launch discussions in the working group.” “Great, I look forward to seeing what transpires”, he replied.

Reflections on Paul’s negotiation plan
I immediately reflected on the conversation with Paul, and felt quite uneasy. Paul, by his own admission is very much a participatory planner and has encouraged inclusive negotiation processes in NRM programs. However, he seemed very comfortable with ‘prescribing’ a negotiation plan up front. I had merely wanted to scope with him how he might interact with a working group to organically generate a negotiation plan, in a bottom-up manner, so-to-speak. I had no doubt that he was attempting to demonstrate a possible approach to leading a group through a ‘negotiation planning’ exercise. The largest problem for me, however, was Paul’s paradigm(s) on NRI are quite different from Mike and Andrew’s. Possibly because of his greater alliance with the social sciences, constructivism and systems thinking, Paul sees the people side of wicked NRI issues more readily and consequently regards participation in negotiation and decision-making as essential. His approach could be viewed as trying to open communicative space.

\(^78\) Paul’s paradigm(s) on NRI are quite different from Mike and Andrew’s. Possibly because of his greater alliance with the social sciences, constructivism and systems thinking, Paul sees the people side of wicked NRI issues more readily and consequently regards participation in negotiation and decision-making as essential. His approach could be viewed as trying to open communicative space.
that, in some ways, I did not feel that the plan was mine, nor I thought would it be owned by the group. He had used a very logical way of planning a ‘structured negotiation’ (Paul’s term), however, I had expected that he might have explicitly inquired into the key pillars (columns) within this and reached agreement on these before proceeding. Notwithstanding these misgivings, however, I intended to honour Paul’s contribution by tabling ‘his’ negotiation plan as early as possible with the NRI working group. I also reflected later on how I had interacted with him and why I was uncomfortable with the outcome. I regretted not interjecting through the process to question his base assumptions re the separate columns and whether he would be so prescriptive with a multi-party group.

Also, I affirmed that a next phase of this PhD research needed to be a much greater exploration of accepted negotiation literature, particularly concerning the planning of multi-stakeholder processes. One of the reasons I had not read extensively on negotiation to establish this research (see Intermezzo I) was that Paul had insisted in 2002 that: “Negotiation has been researched to death! The issue is more in how do you enter the negotiation space to enable good planning to take place.” With his obvious reversion to negotiation theory, I felt I needed some benchmarks with which to compare his experiential and self-professed ‘Fisher and Ury’ (1981) based approach, which by all reports had worked very effectively in CHRRUP. Figure 5.2 is an outline of the ‘negotiation plan’ that Paul Mort proposed. While at the time I did not question Mort’s confidence that this represented an effective plan for NRI negotiations, it was only later reflections that made me unsure as to what extent it was actually ‘a plan’. The plan is only one column in Mort’s table, and it has little detail. Perhaps this belies a key problem where a senior executive manager in DNR&M, who is well recognised for his negotiation skills, has difficulty articulating the actionable steps for conducting such complex multi-stakeholder negotiations.

**Projectising the NRI negotiation process**

The next significant step in the NRI project was driven by Mike Cowper and Andrew Dent. As Mike said, “Now we need to put this project plan into action, get a steering group together, get a working group up and running, connect you with the SIM Whole-of-Government ASAP process and then secure our ties with the chief executive in DNR&M.” In DNR&M, the normative project management practice consisted of the stages that Mike described. This presented some tension in terms of implementing an open negotiation process throughout, although Andrew suggested: “Let us help you get the Steering Group together Greg, then with the working group you can do what you want.”

From this, I understood that I had support for leading the NRI working group (at least) using a negotiation approach, in contradiction to the standard project planning approach. I then prepared a presentation to show to a scoping meeting of the steering group Andrew had suggested. The project steps I proposed are listed below, and were based on the negotiation task list from Leeuwis (2000), the negotiation plan that Paul Mort developed with me, and Andrew Dent’s proposed outcomes. I presented this project plan outline in an initial meeting with key NRI management staff from EPA, DPI and DNR&M to secure representation from these agencies on both the Steering and Working groups (10 July 2002).

The Steering Group meeting was at the Primary Industries Building, a typical inter-agency higher management affair. Lots of cheerful commentary and supportive language and statements, but surprisingly, the normal sensitivities about leadership, funding and equity were noticeably missing. It seemed that the three agencies were unified against Treasury for once. As Ralph Moss exclaimed: “Typically we have to compete within our organisations and with each other for funds. In this case we can collaborate to retain funds!”
<table>
<thead>
<tr>
<th>Constraints</th>
<th>Negotiation Purpose</th>
<th>Negotiation Plan</th>
<th>Negotiation Issue - Style</th>
<th>Opportunities</th>
</tr>
</thead>
<tbody>
<tr>
<td>• Need engagement of steering group</td>
<td>1. Priority Neg** – values + problems + shared understanding</td>
<td>Commitment to NRI Framework – Principles Partly Developed</td>
<td>Role Directional Facilitator</td>
<td>• Part of broader SIM process</td>
</tr>
<tr>
<td>• Need commitment from steering group to engage staff in process</td>
<td>System Investments</td>
<td>Stakeholder analysis – users – providers</td>
<td>• Set bounds</td>
<td>• State of Environment reporting</td>
</tr>
<tr>
<td>• Still need full working group agreement on where going</td>
<td></td>
<td>Scoping of Working Group(s) for key negotiations</td>
<td>• Build strong common purpose</td>
<td>• Treasury reporting</td>
</tr>
<tr>
<td>• Reforming working group</td>
<td></td>
<td>Negotiations at three levels;</td>
<td>• Build capacity of players</td>
<td>• Other user</td>
</tr>
<tr>
<td>• Patch protection</td>
<td></td>
<td>i. Users – Science</td>
<td>• Focus on concerns</td>
<td>• NAP/NHT</td>
</tr>
<tr>
<td>• Corporate dance of avoidance and non-engagement</td>
<td></td>
<td>ii. Align needs with haves</td>
<td></td>
<td>• CP &amp; other plans</td>
</tr>
<tr>
<td></td>
<td></td>
<td>iii. Provider and treasury – Commonwealth negotiations</td>
<td></td>
<td>• Opportunity to recscope Working Group</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>• Greg &amp; Dave (SIM)</td>
</tr>
<tr>
<td></td>
<td>2. Alignment of needs</td>
<td></td>
<td></td>
<td>• Pre-ASAP directions</td>
</tr>
<tr>
<td></td>
<td>• Get easy agreed indicators out of way &amp; isolate-invest in problem</td>
<td></td>
<td>• Fair balance between Users and Science</td>
<td>• but requires refinement</td>
</tr>
<tr>
<td></td>
<td>• Breakdown to 2<strong>rd</strong> phase negotiations re provision</td>
<td></td>
<td>• Balance needs with haves</td>
<td>• Regional information services</td>
</tr>
<tr>
<td></td>
<td>• Eventually build up a clear implementation plan</td>
<td></td>
<td>• What we collect?</td>
<td>• Lots of enthusiasm to get something done</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>• Where are the gaps?</td>
<td>• Case study demonstrating negotiation in NRM</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>• Who owns?</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>• Standards for management?</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>• Strategic</td>
<td></td>
</tr>
</tbody>
</table>

Figure 5.2: Proposed Negotiation Plan for the Natural Resource Information ASAP project (Mort 2002)
1. Form Steering Committee. Proposed membership: Executive Director (DPI), Principal Scientist (DPI), Director (DPI), Executive Director (EPA), Director (EPA), Principal Policy Officer x 2 (DNR&M), Director (DNR&M), General Manager (DNR&M), Director (DNR&M), Greg Leach (DNR&M). (by 10 July 2002)

2. Form Working Group. Proposed Membership: Nominated at Steering Group meeting and followed up with interviews, meetings and agreements (by 19 July 2002)

3. Scoping and planning for Working Group – capacity building for taking a negotiated approach to achieving outcomes (by 30 July 2002)

4. Research of past and existing Natural Research Information initiatives - Desktop– 
   **Addresses Key Action 1 & 2** – (Ongoing)

5. Stakeholder Analysis of users and providers of information – identification and analysis of current Natural Resource Information practices and initiatives within and across Queensland and Commonwealth Government agencies and other relevant bodies (by 30 August 2002) – **Addresses Key Action 1**

6. Scoping and preparing working group for key negotiations (by 6 Sep 2002)

7. Research and key negotiations – Identify stakeholder role, what they do and need, and where they fit with other stakeholders and what they believe are environmental health indicators (by 20 September 2002) – **Addresses Key Action 2 & 3**

8. Conduct negotiations among information users and science (information providers) to decide on a list of key indicators to measure environmental health (by 18 October 2002) – **Addresses Key Action 3**

9. Conduct negotiations among science and information managers to agree upon processes, roles and responsibilities for collecting, managing and accessing NRI to develop environmental health indicators for Qld (by 8 November 2002) – **Addresses Key Action 1, 2, 3, 4 & 5**

10. Report on outcomes and plan next steps (Early December)

11. Steering Committee consider outcomes and future plans

---

**Balancing project planning with negotiation planning**

The steering group meeting was planned and it seemed like actions were beginning to roll. I ensured the proposal to ‘plan the project using a negotiation approach’ was on the agenda.

---

1. Introduction
   Willie Sear (for Andrew Dent)

2. Outline of;
   Mike Cowper
   - NRI ASAP stage 2 report and key actions
   - Location of NRI project in Strategic Information Management project

3. Consideration of project brief;
   Greg Leach
   - Deliverables
   - Negotiation Method/Approach

4. Nomination of working group members – Process to nominate

5. Next Steps for the Steering Committee

---

Figure 5.3: Project Plan Proposal (inspired by Leeuwis 2000, Mort 2002 and Dent 2002)

Figure 5.4: Project Steering Group agenda (10 Jul 2002)
The outcomes from the meeting were that steering group and working group members from respective agencies were nominated, and the project plan was supported as a starting point for negotiating and delivering outcomes against the ASAP 2 recommendations. An interesting observation that was shared by a number of participants in this meeting was best expressed by the Executive Director of DPI&F: “We need to be aware of the ambitious nature of this project. It is at least a four year exercise – not six months!”

To initiate working group interactions, I called each nominee by telephone and then visited their respective workplaces to meet them in person. This was effective in beginning working relationships, giving me a good perspective on each member’s key motivations for being involved, and some appreciation of the individual strategic agendas that each brought to the group. In the following table are my interpretations of the motivations underpinning each working group member based on these initial interactions. Following these individual contacts, I then convened a first face-to-face group meeting at DNR&M head office.

<table>
<thead>
<tr>
<th>ASAP NRI Working Group Member</th>
<th>Position</th>
<th>Strategic Work Agenda (perceived)</th>
<th>Strategic Personal Agenda (perceived)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Marion Winter (Environmental Protection Agency)</td>
<td>Leader in State of the Environment Reporting (SoE)</td>
<td>Engage greater NRI collaborations among Queensland agencies for more effective SoE reporting</td>
<td>Maximise NRI project’s capacity to assist SoE and minimise ASAP’s interference</td>
</tr>
<tr>
<td>Mark Rivers (Premier’s Department)</td>
<td>Coordinator Natural Resource Information (NRI)</td>
<td>Reduced duplication in agency NRI reporting, Agencies agree on Managing For Outcomes indicators and SoE needs</td>
<td>Reduce the large frustration caused by three over-lapping reporting mechanisms: MFO, SoE and Priorities on Progress</td>
</tr>
<tr>
<td>Mick Nelson (Department of Primary Industries)</td>
<td>Senior Climate Information Specialist</td>
<td>Increased efficiency in NRI system and improved NRI sharing and accessibility</td>
<td>Better relationships with cross-agency NRI interactions/ projects</td>
</tr>
<tr>
<td>Bridget Groenen (DNR&amp;M)</td>
<td>Senior Information Policy Specialist</td>
<td>Improved NRI system integration</td>
<td>Improved recognition of DNR&amp;M’s primary NRI management role</td>
</tr>
<tr>
<td>Greg Leach (DNR&amp;M)</td>
<td>Project Leader</td>
<td>Improved relationships and negotiation capacity among NRI stakeholders</td>
<td>Participant observation in complex multi-stakeholder negotiation process</td>
</tr>
</tbody>
</table>

Table 5.1: Perceived positions and agendas of NRI Working Group Members

**Working group deliberations: Negotiating the negotiation plan**

**The 1st Working Group meeting**

The meeting began with my presentation to the group of my proposition of a project action plan including the negotiation approach. I stated explicitly that: “this is simply one option for achieving our given objectives. Please, if you have alternative ideas or plans, please table them now and then we can either throw mine out, readapt, or do what we all can agree with.”
Following are excerpts from the PowerPoint presentation I made to the working group:

**NRI and Differences**
- What do we in the NRI profession effectively deal with differences??
- Why hasn’t a cross agency strategic framework for NRI been developed already??
- What key aspects need to be addressed to develop and implement a strategic framework effectively??

**Problematic in how participatory change processes deal with social conflict and struggle over resources**

Many of our corporate practices often target learning as a key way to solve problems – via developing understanding.

Habermas’ Communicative Rationality– Leeuwis shows that participatory methodologies often target cognitive learning and disregard social practices.

**Participatory process organized along the lines of a negotiation process (Leeuwis)**

Task 1: Preparation – explore and secure participation of conflicting parties.
Task 2: Agreeing upon a process design and process protocol.
Task 3: Joint exploration and situation analysis.
Task 4: Joint fact-finding.
Task 5: Forging agreement.
Task 6: Communication of representatives with constituencies.
Task 7: Monitoring implementation.

**Paradigm Differences**

Paradigm conflict is a major element in human conflict that is generally undeveloped and unexplored.

Challenge for negotiation in NRI – is to “further develop a partnership among NRI people who do not explicitly share the same culture”.

This means overcoming serious communication difficulties.

**Bob Chadwick, on differences and conflict**

Most learned, or taught to avoid conflict.
- Conflict is not good or bad.
- Conflict is just a normal, healthy part of our lives.

There are intrinsic benefits of conflict.
... Key players in conflicts usually want to resolve them ... The challenge is to ‘start’ conflict by confronting it!!

**Negotiation theory suggests three pre-requisites** -
1. must be a divergence of interests;
2. must feel mutually interdependent in solving a problematic situation;
3. key players must be able to communicate with each other.

**My Proposal – The ASAP NRI Working Group to use a Double Loop Negotiation approach to working toward achieving base consensus, agreement and commitment in the two key outputs**

So what is that??

Negotiating how we are going to negotiate as a team with key stakeholders to achieve outputs, and ultimately outcomes.

Figure 5.5: Excerpts from ASAP NRI Project Proposal (Leach 2002)
I presented my proposed project plan (Figure 5.5) to the working group for consideration. To end with, I showed Paul Mort’s negotiation plan and explain the higher-level systems approach to negotiating NRI relationships and efficiencies. I also added that if the group wished we could invite Paul to discuss this model further. In this initial working group meeting, there was considerable discussion about each member’s different projects and roles in the NRI system, but little discussion considering the ‘negotiation plan’ proposed. The mood of this first meeting was quite exploratory, even though members were quietly defensive. For example, Marion Winter said on more than one occasion, “It is really great to explore where we are all coming from in terms of NRI paradigms, especially on things like triple-bottom-line.” She also put her views on ‘paradigm efficiency’ (as she called it) on the table when she added, “The environmental, economic and social data sets should not be represented as three interlinking circles, but as three concentric circles with economic in the middle, social the next ring out and then environmental being the surrounding data set.” She did not, however, seem eager to consider how NRI differences might be investigated as the entry point to quality interactions and negotiations about how these paradigms influence or stifle efficiencies in the NRI system.

When I asked about the proposed negotiation plan and Paul’s plan, Phil Mannix responded with, “I think I would need to get my head around the process a bit more. I agree that in many ways we are negotiating, and we certainly have a lot of crossed-purposes and processes about which to negotiate, but I am not sure yet how to go about doing it. It would be good if we had a model or something.” Mick Nelson supported this when he added, “Are we making things too complicated when we think about developing a negotiation plan? Can’t we just get in there, assess the situation, work out where the obvious inefficiencies are, and write a report?” “Yeah, we could,” I said. “But that would not help us get some collective head-space around the main recommendation of an NRI Framework. I think that it would be good to engage with the skills and agendas of the different players to help them influence each other to develop and own a useable framework.”

Others in the meeting seemed unsure, and to counter this, I asked the group to consider a matrix that outlined the NRI project as a negotiation process (adapted from Leeuwis 2000). I asked if the group could consider the break-up of roles and responsibilities and to fill these in. This proved to be a little challenging for some, but Marion, Phil and other group members rallied to fill the matrix in a few minutes (see Table 5.2). As the meeting closed, we agreed to discuss more via email and reconvene in just over a week’s time.

**Hijacking the 2nd Working Group meeting**

“At least I know a bit more now about the intended outcomes that we are seeking from this project. I have a better picture of what we need to do,” said Bridget Groenen. Marion quickly asked, “So you have a plan Bridget?” Immediately Bridget retorted, “No, no, no – I wouldn’t go that far. I mean the outputs.” Phil said, “Greg, I have been thinking about the negotiation plan, and I have started to shy away from the idea. I, for one, do not have the skills to run tricky group processes.” “Neither do I and I don’t think any of us do really,” added Mick.

“I’ll come back to it again. I think we need a good process model. One that we know will work,” said Marion. “I don’t want to throw a wet blanket on your idea Greg, but I just don’t think we are up to it – as a working group I mean.” She went on, “I think that a well-tested model like LogFrame would provide us with a good basis for designing the way forward. I have certainly had good experiences with it. Logframe takes a systematic view of a project/issue and deductively determines the ‘logic’ of where the shortfalls are and what is needed to achieving effective outcomes.”
<table>
<thead>
<tr>
<th>Activity</th>
<th>NRI Project Management Team</th>
<th>Project Sponsor</th>
<th>Project Owner DNR&amp;M</th>
<th>Working Group</th>
<th>SIM Review Committee</th>
<th>Dates</th>
</tr>
</thead>
<tbody>
<tr>
<td>Form Steering Committee</td>
<td>Primary responsibility</td>
<td>Input</td>
<td>Input</td>
<td></td>
<td></td>
<td>July 2002</td>
</tr>
<tr>
<td>Form Working Group</td>
<td>Primary responsibility</td>
<td>Approval</td>
<td></td>
<td></td>
<td>Approval and sign-off</td>
<td>July 2002</td>
</tr>
<tr>
<td>Scope &amp; Plan Working Group</td>
<td>Primary responsibility</td>
<td>Primary</td>
<td>responsibility</td>
<td>Approval</td>
<td>Approval and sign-off</td>
<td>July-Aug 2002</td>
</tr>
<tr>
<td>Desktop Research</td>
<td>Primary responsibility</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>Ongoing</td>
</tr>
<tr>
<td>Stakeholder Analysis</td>
<td>Primary responsibility</td>
<td>Input</td>
<td>Input</td>
<td>Primary</td>
<td>Approval and sign-off</td>
<td>Aug 2002</td>
</tr>
<tr>
<td>Scoping and preparation of working group for key negotiations</td>
<td>Primary responsibility</td>
<td>Primary</td>
<td>responsibility</td>
<td>Approval</td>
<td>Approval and sign-off</td>
<td>Sep 2002</td>
</tr>
<tr>
<td>Research and key negotiations – Identify activity/role</td>
<td>Primary responsibility</td>
<td>Input</td>
<td>Input</td>
<td>Primary</td>
<td></td>
<td>Sep 2002</td>
</tr>
<tr>
<td>Conduct negotiations among information users and science – Environmental Health Indicators</td>
<td>Primary responsibility</td>
<td>Input</td>
<td>Input</td>
<td>Primary</td>
<td>Approval and sign-off</td>
<td>Oct 2002</td>
</tr>
<tr>
<td>Conduct negotiations among science and information managers to agree upon processes roles and responsibilities</td>
<td>Primary responsibility</td>
<td>Input</td>
<td>Input</td>
<td>Primary</td>
<td></td>
<td>Nov 2002</td>
</tr>
<tr>
<td>Report on outcomes and plan next steps</td>
<td>Primary responsibility</td>
<td>Primary</td>
<td>responsibility</td>
<td>Approval</td>
<td>Approval and sign-off</td>
<td>Dec</td>
</tr>
</tbody>
</table>

Table 5.2: Responsibility Assignment Matrix for ASAP NRI Project negotiations

“Yeah, and we could hire a consultant that specialises in it. That would take the heat off us,” added Phil. “Who could we ask?” Marion had a quick response. “I did some training at
Indooroopilly just over a year ago with Project Management Solutions – maybe it would be worth asking them for a quote.” The group generally supported the idea of employing a consultant to run a LogFrame methodology, however, I was quite alarmed at the ease with which everyone agreed to this.

I reflected by myself for a time, querying the use of such a model against our task as prescribed by ASAP 2. Then I questioned the group, “I have a number of concerns. Maybe this is a good idea to employ a consultant to deliver LogFrame, but with what I know of LogFrame, I am dubious as to whether this will help us meet the objectives we are striving for.” Marion endeavoured to reassure me by saying that, “If we ran a one-day workshop, many of these concerns will be covered off.”

So, within the space of two minutes, it seemed my research line into investigating negotiation practice had been hijacked. My initial reaction was one of disappointment. I quickly realised, however, that the group’s lack of confidence was a key learning in itself. Those in the working group all agreed that the ASAP NRI project required some approach to negotiate differences. Bridget summed it up when she spoke to me after the meeting, “They all believe that they need further capacity before being confident enough to attempt an interactive negotiation process by themselves.”

**The Logframe Workshop**

Mark Rivers was the consultant we interacted with to design a one-day workshop, and then to facilitate it. Mark had a very professional, almost polished, demeanour and conduct, and provided unexpected dimensions to the event. I quickly perceived, from observing the working group interaction, that Mark’s presence and self-assured nature imparted to the group a confidence in the capacity of LogFrame to perform the task required.

Mark demonstrated early on that he had an impeccable (or at least practised) eye for detail and pointed out that, “Through the two months leading up to the forum, there are an enormous amount of things, both large and small, that we need to organise and cover off on”. However, prior to listing and considering these, the group asked Mark to give a brief outline of the LogFrame tool.

---

**How LogFrame may fit into the ASAP NRI Project**

<table>
<thead>
<tr>
<th>Level</th>
<th>Rationale</th>
<th>Impact</th>
<th>Key Performance Indicators</th>
<th>Mean of Verification</th>
<th>External Factors – Risks &amp; Assumptions</th>
</tr>
</thead>
<tbody>
<tr>
<td>Goal</td>
<td>Greater why</td>
<td>Accountability</td>
<td>Quality</td>
<td>Quantity</td>
<td>Time</td>
</tr>
<tr>
<td>Purpose</td>
<td>Why, Outcome</td>
<td>Outcome, wider importance</td>
<td>Impact</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Output</td>
<td>What to do</td>
<td>Project Sponsor</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Activities</td>
<td>How</td>
<td>Project Manager</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Accountability = Responsibility + Authority

The base logic of the LogFrame table is that if in ascending order all the components on a line (e.g. Activities) hold true, then this will achieve the next level (this is called Zig-Zag Logic)

Figure 5.6: A whiteboard description of the LogFrame tool (Rivers 2002)
In the meeting with the working group (19 Sep 2002), Mark had seemed a little cautious as to the capacity of LogFrame to meet our needs. He remarked that, “This ASAP NRI is quite a complex and involved multiple party process. It’s quite a large project.” In complete concordance I asked him, “Yeah Mark, it is quite complex, and I am interested where you think that point of entry is for the ASAP NRI project with LogFrame? Are we ready for this detail yet, or is a one day workshop confusing us in matching a tool with a need?” Mark responded with further explanation. He said “What if we consider the steps to setting up the LogFrame exercise.” Then he spoke while mapping the following diagram onto the whiteboard, saying, “This will be the test as to how far we might get in a LogFrame exercise.”

It was at this point that Phil Mannix expressed his unease. “We have a long way to go before we are anywhere close to running with the LogFrame methodology then. We are very much still at the stakeholder analysis stage, and do not have a firm idea on the interests that other players have or their idea about the problems in the NRI system.” Everyone agreed that we were at an early stage of the LogFrame process. And then, almost in unison, everyone’s eyes were on Mark Rivers. “So where does that leave us with you Mark?” asked Mick. Mark’s reply was very deft. “Well, my offer still stands for working the issues in the NRI environment towards better outcomes through the LogFrame process, but it looks like we may be a bit further back than we may have first anticipated. What I see this workshop needs to be is a good part of the stakeholder analysis, and the outputs will then begin to fall into the objective tree – and I have lots of experience with acting as a facilitator to ‘set up’ the LogFrame process. It is up to you.”

Steps to get there…

- What is the interest?
- What outcomes do you want from the project?
- Hierarchy and Order?
- Cause-Effect relationships?
- What is in the scope?
- What is out of scope?
- At what level in the tree are we targeting with this project?

Figure 5.7: A whiteboard description of using the LogFrame tool (Rivers 2002)

Mark had neatly secured his further engagement. The working group agreed almost immediately that the workshop would serve well as a stakeholder analysis by bringing the numerous parties together for a day, rather than spending considerable time meeting each separately. “This analysis can quite easily be framed in the context of your ASAP 2 recommendations too,” suggested Mark. Again there was complete agreement. I was amazed at how easily the negotiation of roles and responsibilities amongst NRI stakeholders was delayed by the working group. It seemed that confidence, capacity and willingness to negotiate was lacking.

The NRI LogFrame Workshop
Following this sequence of events, the workshop was something of an anticlimax (for me at least). The key emphasis of the workshop proceeded to be the scoping of issues within the NRI environment in Queensland, seeking suggestions on strategies to address these, and
then an identification of the responsible parties for taking this forward. While very professionally run (complete with mood music in small group sessions), LogFrame was merely introduced at the beginning and end. This approach resulted in an enormous list of issues and proposed solutions and accountabilities. Table 5.3 provides an example of extensive outputs from the workshop sessions.

<table>
<thead>
<tr>
<th>Issue</th>
<th>Strategy to address</th>
<th>Who is Responsible</th>
</tr>
</thead>
<tbody>
<tr>
<td>A process/forum for prioritisation of data collection is needed – Currently Policy and Projects are disconnected</td>
<td>Convene an ‘annual’ cross-agency forum for strategic prioritisation of natural resource data collection needs and processes</td>
<td>• An advisory body that has decision making capacity</td>
</tr>
<tr>
<td>There is a lack of identified &amp; agreed ‘core’ data sets that support indicators and measures and a clearly defined process for updating them – Current ‘long lists’ need to be rationalised for wider visibility, understanding and use</td>
<td>Convene committee to agree on ‘core’ data sets through coordination, reduction, amalgamation and rationalisation of existing sets – Also tidy up perception of ‘indicators’ – this term is associated with a long list of ‘difficult to digest’ measures</td>
<td>• Qld Multi-agency committee (e.g State of Environment process) inform Commonwealth</td>
</tr>
<tr>
<td>Project based funding leads to misalignment and fragmentation of natural resource collection needs and processes</td>
<td>Provide economic/business case to demonstrate the cost savings and marginal cost of collecting natural resource data in a prioritised, cross-agency team approach and highlights the potential usages and benefits of data collected on a regular basis. Also a central register of data that is created from projects is needed (ROSI)</td>
<td>• An advisory body that has decision making capacity and direct linkage with CEOs L&amp;R</td>
</tr>
</tbody>
</table>

Table 5.3: ASAP NRI Forum Outcomes – Natural Resource Data Collection (Leach 2002c)

From this workshop, I reflected that, like with the New Extension Strategy, a collection of cross-agency stakeholders are very enthusiastic about identifying issues, strategies to address them and assigning responsible parties. It is the next phase or threshold, involving potential complexity and conflict that seems to challenge current ‘process-management’ approaches. ‘Easy to scope – Hard to do’, sprang to mind.

The Report

My job, as project leader, then became to oversee the synthesis of outputs from the workshop and endeavour to reconfigure the large volume of issue-solution-accountability outputs against the ASAP 2 recommendations. The working group gave support (albeit distant) to this with the majority of effort contributed by Bridget Groenen and myself in DNR&M. The report was quite long due to the relative complexity of interfacing the ASAP 2 recommendations with the large volume of outputs. The document went through much iteration, and from my records the 36th version was eventually submitted to the SIM Review and then to the Cabinet Budget Review Commission.

The response from the CBRC was simply to “go ahead and do it” and confirmed that DNR&M was the lead agency to oversee implementation of the recommendations. Since then, however, the very limited implementation of the recommendations within the report, and the lack of feedback to NRI staff that contributed to the ASAP 3 NRI process, serve to perpetuate a climate of scepticism regarding such review processes. Later discussions with Bridget saw agreement that, “Transparency regarding the outcomes was poor.”

79 The aims of ASAP 1 and ASAP 2!!
5.2 Analysing NRI negotiations

5.2.1 Constructivism and memetics in NRI negotiations

Multiple ‘memes’ were central to interactions in this episode, each a subset of the ‘NRI integration’ meme advanced through State Treasury, complete with its concomitant expectations of reduced wastage and inefficiencies. As the ASAP 3 NRI project progressed, higher-order, desirable\(^80\) memes that emerged included ‘information’, ‘framework’, ‘NRI efficiency’, ‘data-access’ and ‘cross-agency’ alongside the longstanding NRI memes such as MERLIN, SIR QSIIS and ENRII (amongst numerous others, see Starling and Wilson 2004). The ‘desirable’ memes promoted by the ASAP process aimed to increase collaboration and integration amongst the colourful yet poorly integrated collection of ‘information fiefdoms’. The fact that the ASAP 3 NRI project really only performed a stakeholder analysis, without advancing the negotiations required for brokering new arrangements, further risked the promotion of persistent resistance to conceptual, structural and operational alignment.

Each of these memes continued to survive, however I argue that the interpretation placed upon them is somewhat different to what was desired by ASAP. The low levels of attention given to the ‘collective interpretation’ of these and other memes central to NRI is the reason why they replicate, but with sub-optimal and, indeed, often counterproductive meanings. It could be argued that organisations use broad, vague and ill-defined concepts in order to mask conflicts, tensions and continue to work in a seemingly coherent manner, however, the counterproductive risks of NRI memes are testified by the ponderously slow implementation of fundamental organisational initiatives such as ENRII, the framework endorsed by EMG to enable integration and efficiency in the NRI system.

The wider cross-agency hermeneutic arena, while being encouraged through a variety of interagency working groups and mechanisms (such as ASAP and SIM), does not appear to have a level of maturity, sophistication or coherency enabling even a general collective appreciation of stakeholder issues and opportunities. Memes such as ‘NRI integration’ have had little opportunity to flourish across the Queensland Government, let alone the wider NRI stakeholder base. From a constructivist perspective, it is interesting to observe that NRI stakeholders appear to have a collective norm that ‘information’ is critical to NRM practice change, but focus little on ‘communication’, i.e. the multi-party interpersonal processes enabling the creation of shared meanings. A critical assumption appears to be that ‘information’ is an unproblematic concept with clear meanings. This fits an instrumental (or compliance) way of thinking and a tendency to see ‘right’ or ‘wrong’ outcomes.

In terms of the constructivism-memetics dialectic in this episode, the ways in which the different stakeholders interact and bring their emergent meanings to bear on the above memes are constrained by conventional approaches to interaction. Usually interactions are not intended or designed for inquiry into differences of how individuals and organisations interpret the political or social influences of memes like ‘NRI efficiency.’ At no time were the different constructions of ‘integration’ or ‘efficiency’ bought into question. Efficiency by whose judgement and using what criteria? One base assumption never really explored in this project was that ASAP was simply seeking financial savings. Perhaps if CBRC staff had been invited to interact with NRI stakeholders, a degree of emergent understanding may have resulted through interactions inquiring into the constructed notion of ‘efficiency.’

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80 For ASAP, cross agency efficiency and effectiveness
It was quite revealing that all in the working group (and steering group) agreed that ASAP was concerned with **negotiating** opportunities for ‘NRI efficiencies’ among the multiple Government stakeholders that collect, use and store NRI. In particular, working group members agreed that the three pre-requisites of negotiations (from the above presentation – divergence of interests; mutually interdependent; able to communicate) characterised very well the nature of the NRI environment in Queensland. They also were in agreement that differences in approach leading to overlap and inefficiencies needed to be **confronted** at several levels (e.g. at the level of paradigms and beliefs, with different agency Information Policy sections) in the NRI domain. Based on these agreements and obvious interest in improving integration of information systems across agencies, I interpreted that NRI project members believed that effort was worthwhile in trying to progress these negotiations. On the other hand, however, I identified that, while the working group and other stakeholders were in agreement that a number of issues in the NRI environment needed to be effectively negotiated, those same people do not demonstrate confidence in their own capacities to progress these negotiations.

Another observation was that Public Servants (particularly those with considerable years in management positions) demonstrate a less-than-optimistic outlook in relation to Government (e.g. Treasury) reviews. The ‘review’ meme thrives, but in a negative context. Through time, I came to understand that the majority on the working and steering groups were ‘battle-weary’ from experiences with past review efforts and the questionable input of time, resources and emotion, only to see these initiatives come and go, often with little resultant influence or change. The ‘review meme’ appears to replicate review exercises as theatre performances or rituals that people are required to go through, regardless of the fact that they do not believe in them or feel too powerless to change them. I sensed several times from the working group, some reservation in becoming involved in unorthodox (risky or career limiting) undertakings, when the end result may not warrant such risk-taking. Also important here was the fact that members of the working group were interacting with peers with which they (in many cases) have ‘effective working relationships’, and history. They saw that this process might unnecessarily upset ongoing interactions amongst stakeholders in the NRI environment.

A further reflection was that when ASAP invited staff to investigate and identify areas to reduce inefficiency in their own work (read strategic agendas), this was a two-edged sword. On the one hand, the direct participation enabled valuable learning and networking to take place within the NRI system. On the other hand, these same stakeholders were very clever at using participatory processes and protective bureaucratic shields to ward off reviews that critically inquire into their use and allocation of resources.

Positive reflections I had on this project included a resounding conclusion that managers will support project management approaches in DNR&M organised along the lines of a negotiation process. This may have surprised the senior staff I worked with in this project, who espoused and supported inclusive decision-making approaches where points of difference were to be resolved. The act of explicitly working with the project as a negotiation process was very positive. The working group, while not wanting to organise and facilitate a negotiation process themselves, were satisfied that the resolution to run with the LogFrame process was a positive ‘negotiated outcome.’ They explicitly agreed that the process of ‘negotiating the negotiation’ was very useful, even though initial reactions to the concept had been lukewarm. While unsure of this outcome, I was optimistic that this might be useful in further episodes.
5.2.2 Emergent learnings from NRI negotiations

A number of conclusions from this research episode, in terms of approaches to negotiation and the implications of this on the institutionalisation of extension, can be drawn:

1. Meme survival does not necessarily indicate that the intended meaning (as cultivated by Government for example) is actually that which replicates in the planned and unplanned audiences. When trying to influence the carriage and replication of a meme in a positive way, an intervening party may need to maintain some continuity of contact and intent (e.g. in this episode to explicitly follow through on the ASAP recommendations with participating Government and non-Government NRI stakeholders).

2. ‘Alignment’ (for ‘integration’ and ‘efficiency’) is a constructed artefact. Alignment by whose judgement and by what criteria? Purposeful inquiry into how different stakeholders (particularly CBRC staff) understand and interpret the alignment meme in this episode would have enabled greater clarity on the expectations of the ASAP process.

3. Acceptance of the need to negotiate in multi-stakeholder processes may be accompanied by a lack of confidence and capacity to carry out the necessary negotiations. This may signal a need for capacity building in multi-stakeholder negotiation or alternative approaches for solving such complex dilemmas.

4. Participants in a multi-stakeholder interaction may be risk-averse because of their (institutional) history and association with such (often sub-optimal) processes. This may indicate that particular effort is needed with enrolling these people in a negotiation process, or alternately that risk-takers be selected among participants.

5. Asking people to find efficiencies in their own work is problematic. Maybe it is more effective to use a peer or external review team to investigate the integration of NRI projects and interactions and progress negotiations for improvements.

6. Negotiating and designing are different things. From this episode, however, I conclude that capacity building in negotiation approaches would be beneficial in designing interactive multi-stakeholder interactions. An effective presentation may be necessary to enrol stakeholders in organising and conducting interactions as a negotiation process.

7. Working groups may find it challenging to organise and implement projects using a pre-planned negotiation approach (e.g. such as prepared by Paul Mort).

5.3 Negotiations around compliance and extension memes

5.3.1 The Compliance Strategy and New Extension run in parallel

During the development of the New Extension Framework (1999-2000), a separate Compliance Strategy process was also unfolding in DNR&M. In this period, the legislative base of DNR&M was undergoing enormous development with a wave of NRM reform. The Water Act was being readied for release toward the latter part of 1999 and the Vegetation Act was being prepared to be announced later in 2000. Arguably, the Compliance Strategy process was an inevitability at a time when new legislation was being progressed, but was challenging in the face of most DNR&M staff members’ more conservative and ingrained approaches to ‘doing business’.

Daisy Best was overseeing the development of this Compliance Strategy but had been using a different approach to the Extension Strategy Working Group (ESWG). While a number of contacts were made with Daisy through this period by members of the ESWG, there was no movement by either her or her associates to link New Extension to the developing Compliance Strategy. There was also very little proactive moves made by the ESWG to
contact senior DNR&M management to resolve the issue of linking these two initiatives, conceptually or strategically. This separation continued through 1999 to January 2003, with neither initiative receiving official endorsement by the Executive Management Group (EMG) for implementation.

As 2003 approached, it appeared that the implications for the negotiation of compliance and extension memes in DNR&M were:

- Overlapping and necessarily linked initiatives such as New Extension and the Compliance Strategy can exist and proceed as separate activities in DNR&M without management directives to strategically and conceptually link them
- Maturing legislation through 1999-2003 saw that the requirements for the compliance-extension linkage were not clear
- Engagement is needed at senior management levels to negotiate and secure support for cross-linking and interdependent initiatives
- Non-linkage of New Extension to the Compliance Strategy was counterproductive to both initiatives due to the need to almost completely re-initiate processes to take the compliance and extension memes and their linkage forward
- Neither the ‘extension meme’ nor the ‘compliance meme’ had high replicator power at this stage.

In the following section, I describe in an autoethnographic narrative form, a condensed version of my interactions with the key players in the next stages of the ‘Compliance Strategy’ process starting in late 2002 in DNR&M. This next episode is presented with the previous sections as the timing and conceptual approach was similar. The record is based on the outcomes of cumulative events and many interactions in meetings, by telephone, email and written documents.

At this point in DNR&M’s journey, it was becoming apparent that the use of coercive policy instruments to enable landholder compliance with regulations was threatening to replace the use of non-coercive instruments such as extension which encourage voluntary change.

### 5.3.2 Autoethnography: Re-engaging the extension–compliance interdependency debate

Cam Duncan is a General Manager of the water business group in DNR&M and I have known him since 2000. Due to positive relations with him through this period, I had every confidence that he would prove a good entry-point for an applied investigation into the relationship between extension and compliance, and the negotiation processes that were going on in relation to this. As I was nearing the end of my exercise with the ASAP NRI process (in the later part of 2002 and the first two months of 2003), I made contact with Cam in effort to re-engage interactions between the New Extension and Compliance Strategy processes.

**Talking with Cam on his approach to negotiating the compliance meme**

I always felt at ease and in a productive and supportive environment when I met with Cam in his office, complete with its view over the top of the Parliamentary Annex and over the South Bank of the Brisbane River. Cam is a tall but non-imposing man around 50 years of age, and has a background in economics, forestry compliance and now the water industry (dealing with large State commissioned dams and water boards). In my interactions with Cam, I have seen him as a retiring and less-confronting leader and he reflected with me a number of times on his own style of management and how it was perceived by other senior
staff. He was open about the tensions he felt. Regarding interaction with me, Cam was very personable and we exchanged details through time about our children, who are of similar ages, and the joys of being a parent. I was very comfortable with Cam.

In August 2002 in one of our meetings I put a proposition to him. “Hey Cam, thanks for meeting with me again to progress this extension agenda that Mary Craven and I have been trying to keep alive. We are really keen to see where the Compliance Strategy is at and whether there is a bridge building process that we can help re-establish when the time is right”. I paused and then added, “And I have a research agenda here, too, Cam. I want to investigate negotiation practice in NRM and where it fits with the extension and compliance directions in the Department.”

Cam was interested. He went on to talk about the dam safety process that he had been working on with Willy Drake, the Dam Safety Compliance Manager. “Hey, let’s sit down with Willy Drake and do some planning for a workshop that we have been pondering about for some time. Willy has been wanting to clarify the Dam Safety Compliance approach to working with clients and how we position ourselves as DNR&M.” Cam continued by placing compliance in a higher frame of reference than I normally think in. “Minister David Cameron is applying an increased level of political pressure on DNR&M to meet its legislative enforcement and administrative responsibilities. Industry, various stakeholders and key individuals and regional organisations are also calling for improvements in the administration of these new pieces of legislation. So we can use this dam safety compliance example as a case study to inform the Department.” Then he came back to my role in this, “And we will be able to canvass the negotiation and extension through that. On the compliance spectrum, we need to be good at the pointy end of regulation and enforcement, but we surely need a lot of input on the extension and education end too. And because you are keen on investigating this, I might be able to set aside some funds to run a project for six months or more after you have finished your ASAP work, starting early next year.” Needless to say, I was extremely excited at the prospect and I was comfortable with this ‘loose’ point of entry rather than embarking on a full Compliance Strategy – Extension Strategy interface. It may be argued that a clear understanding and shared agreement was never reached on what problem(s) a negotiation approach was going to resolve, i.e. improved compliance services, better linkages of compliance (coercive) with extension (non-coercive) approaches, and/or improving the organisational positioning of compliance. I guess at this stage I was content that more than one issue was at stake, the mutuality amongst these issues was implicitly understood and there was not yet comfort or confidence in the process for enabling this clarity.

So we met with Willy Drake to identify who needed to be involved in a workshop and how interactions might be best organised. Willy and Cam both had a fairly firm line on who should be involved, but both agreed with me when I said, “This is certainly a case of negotiating some very deeply ingrained values and belief systems on the role of regulation and compliance in achieving responsible NRM behaviour. We actually need a negotiation plan.” I felt my contributions on this were productive when Cam said, “Yeah, this is at the heart of the issue, but the challenging part is how to engage with these different approaches along the compliance spectrum.” It was at times like this when I felt that Cam’s notions of the compliance meme resonated very well with my own understandings of regulation and compliance in interventions seeking practice change.

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81 Which ranges from voluntary change on the one extreme and particular institutional inputs, for example education and extension, through to enforcement and prosecution at the other extreme (see Figure 5.5 below).
It became apparent to me through these discussions that the recent appointment of Vegetation Management Compliance coordinators was a very important aspect of the workshop we were proposing. Willy Drake provided his own position on this when he stated very firmly, “Well, I suppose we have to include the Veg Management guys in this. But I don’t want it to be a Gary Metway show!” And I certainly don’t want their view of compliance to be the only view in the department!” While he was quiet, Cam did not disagree (and upon reflection much later I saw this as acknowledgment of the tensions that Cam saw developing). In this light, further planning discussions and efforts around the dam safety workshop were imbued with a principle of constraining potentially destabilising agendas and inputs into the meeting. The ‘negotiation plan’ resulting from discussions is presented in Figure 5.8.

As planning got underway, Cam said to me, “Hey Greg, as part of the preparation for these two workshops, you might want to speak to a few people who have been working on this compliance strategy and compliance planning game for a while. Angelique Weld would be a good contact.” When I followed up on his suggestion, I could see why he recommended her as she amplified his views on the compliance spectrum and demonstrated the wider organisational support for this approach.

Angelique and I did not see eye-to-eye when I met her, though, and as we introduced ourselves she saw little value in the negotiation aspects of compliance. She said, “I have a more water industry view on compliance that is integral to the development of the Water Act 2000 and compliance with the Act.” Then she provided me with a definition from the Water Compliance Policy which obviously was influenced by Cam’s wider view on necessary components of the compliance spectrum.

This provided me with a firm ‘corporate’ understanding of Cam’s – and for the most part the DNR&M Water Section’s – view on compliance. A further interview with Gerry Miller, the Water Management General Manager, confirmed this. I interpreted that Cam’s ‘compliance meme’ was in line with the water compliance business model notion of “balanced education and monitoring activities, as well as enforcement activities.” At Gerry’s recommendation, I also met with Richie Mason, a Compliance Coordinator in Water Management, who placed this compliance spectrum in a more historical frame when he said, “I work with lots of Water Boards that have had a very self regulatory mandate for many years. But the results of this practice now are that there have been long-term bad practices and extension of this throughout water users. In the Department, the big challenge is overcoming a culture of acquiescence – the big ‘disinterest in prosecution.’ Many of the players do not like the risk of the oppositional scenarios. They are engineers or people who do not deal with the prosecution side of compliance. We need to take a stronger stance on compliance and determine the best mix of roles!”

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82 With the workshop heavily dominated by Gary Metway
Negotiation plan - Meetings for developing a DNR&M Compliance Plan for Dam Safety

½ Day – 18 Nov 2002
1. **Introduction and Context – Willy Drake**
   What exists in dam safety now; Standards – where they come from and the challenges they present; The stakeholders; How the dam safety regulatory environment works; Pressure points/sensitivities; Questions?
   **Outcome – increased awareness of Dam Safety**
2. **What is a Compliance Strategy?**
   100% Compliance in Dam Safety: How? and What is the Mix of Education, Awareness, Enforcement, etc.?.; Placing different perspectives on the table – Contrasting approaches
   **Outcome – increased understanding of a Compliance Strategy**
3. **Detailed program for the “Development of a Dam Safety Compliance Strategy for DNR&M”**

1 Day – 29 Nov 2002
1. Recap of 1st day and program plan for the “Development of a Dam Safety Compliance Strategy for DNR&M” – the format for the day will be determined at the first meeting. Following is one process option. Other alternatives might include Scenario Planning or Future Search
2. Identifying the issues to be dealt with in developing a “Dam Safety Compliance Strategy for DNR&M”
3. Propose an action plan to deal with these issues – his plan needs to include a self improvement/evaluation process
4. Reaching agreement on the next steps
5. Outcome foreshadowed – a Dam Safety Compliance Strategy developed in a participatory/inclusive manner with input from contributing DNR&M sections

**Proposed Attendees**
- Water Management & Use – Gerry Miller (ask for nominees)
- Centres of Expertise – Regional Managers nominate (e.g. Pat Smith – Mackay)
- Strategic Directions – Paul Mort & Danny Liz also Regional Service Directors) (Greg ask)
- Compliance People – Gary Metway, Richie Mason
- Communications – Brad Mand or nominee, Paul Horwood
- Education/Extension – Greg Leach, Mary Craven, Maureen Ally
- Compliance Resource People – Cindy Miner (Qld Police), Val Mottley - Legal Services
- Head Office Dam Safety –Don Wiggler, Rick Loft, Internal Audit – Cal Mandrake

Figure 5.8: Negotiation plan for advancing a Dam Safety Compliance Plan in DNR&M

‘Compliance’ involves ensuring compliance with both the terms and conditions of licences, permits and water allocations issued by the Department as well as with the **Water Act 2000** and the **Integrated Planning Act 1997**. This may occur through education and monitoring activities as well as enforcement activities such as surveillance, investigations, prosecution and all other responses by the Department to minimise breaches.

Figure 5.9: Compliance Definition: Draft Water Compliance Policy (DNR&M 2002)
"So what did you think of the two meetings, Greg?,” asked Willy Drake after the second meeting on November 29th. I gave my opinion: “Well, we have had very good participation and interest in the two days, however there is quite a gulf in understanding and approach between the water guys and those in Veg Management, and there is quite a lot of positioning and territorial discussion.” Willy agreed and added, “Yeah, but I got what I wanted out of this process, some recognition of the approach that we are taking in Water Industry. And I feel that our compliance business is divergent from Gary Metway’s Veg Management approach.”

I concluded for myself that while Willy had a strong argument for the separation of Water Industry where he deals with large corporate entities, water boards and private companies, and Gary Metway’s group interacts with ‘offending’ private landholders, the broader clarity of compliance direction in DNR&M remained unclear.

In discussions with Cam, he also concurred with this lack of clarity. So I presented him with a project concept that I had been developing which included applied investigations into negotiation among compliance stakeholders and the role of extension on the compliance spectrum. “Cam, I believe that through continuing to investigate the different approaches, issues and needs in the compliance sections of the Department, we will be in a better position to facilitate the negotiations needed for positioning compliance, and for me, positioning extension within that.”

Much to my delight, Cam agreed wholeheartedly and even suggested, “If you draw up the project, I will pay you to do this work.” I was consequently even further pleased with Cam’s offer and accepted it immediately. Quietly, I reflected at the time that Cam had enrolled me in his ‘side’ of the ensuing compliance debate and ensuing conflict. This, I was sure, would prove a checking point later in the interaction.

I presented Cam with an option to run a participatory negotiation project involving the key departmental staff involved in planning and implementing compliance programs and processes. Cam agreed that this would be productive and suggested that, “This would be most effective if these negotiations could occur at several levels. Negotiations at the regional scale, where Regional Compliance Coordinators endeavoured to help plan and organise compliance actions at their respective centres. Negotiations amongst business groups separately planning and undertaking compliance activities. Negotiation at a senior management level to help coordinate integrated compliance approaches across DNR&M.” He paused and then rallied with his argument, “A key step in these negotiations is going to be with senior management – I think we need a senior level managers meeting to establish a position on the structural, conceptual and operational levels of compliance.”

Cam and I agreed that this meeting was a crucial step. “You know, Greg, in the lead up to this, two regional case studies would help to identify the specific compliance planning, processes, progress and needs, as necessary information for the negotiation process.” At this point, Cam paused and whimsically added, “I guess you better see Housy about this too. It looks like Bill Houseman might be a key player in this whole process. As acting Services
Director, he will have direct contact with the Regional Directors who are leading the on-ground compliance work.”

I sensed in Cam’s words and manner a deal of nervousness and concern about the next stages of these interactions if we were indeed moving to organise a senior managers meeting. This would test Cam’s longer standing role and approach to compliance in DNR&M. And indeed, it would also test Cam’s version of the compliance meme. Does the Department need this more balanced view of the compliance spectrum including non-coercive means such as extension, with coercive means such as enforcement to achieve responsible NRM behaviour? (I hoped so!)

**Changing leadership – Changing memes**

As the planning for the proposed senior managers compliance workshop was just beginning, a fundamental shift in the compliance leadership roles in the department began to take place.

Cam confided in me by telling, “The EMG\(^{83}\) has been considering the increasing importance of the department’s compliance strategy – and it seems that they are unsure that I am the best person to lead this.” Cam seemed quite despondent on this point and I did not labour it with him.

Bill Houseman, who was acting in the position of Executive Director – Services, and the EMG believed that this position had a wider overseeing capacity than Cam in his water industry role. As a consequence, Bill relieved Cam of the leadership role for compliance in DNR&M in January/February 2003. So, in line with Cam’s earlier suggestion, I made contact with Bill Houseman to progress the idea of a senior management compliance meeting. I had not met Bill prior to this interaction and found him to be a tall, but surly man with a friendly, if not gruff nature. I developed a level of confidence with Bill relatively easily.

In our first brief meeting, Bill indicated his eagerness to progress the managers’ compliance workshop. One thing that really struck me in this first encounter was his frequent reference to (organisational) structure and the location of compliance in DNR&M business units. Bill also said, “I have been doing a fair bit with Gary Metway on this and it would be good to involve him in it too. How about I set up another meeting next week, you, Gary and I?”

Bill had risen in DNR&M to a very high level in this acting role and had effectively jumped several levels. The common procedure with acting roles in DNR&M is that when an essential position is left vacant, a person who is familiar with the role ‘acts’ in it until a formal merit selection process can be organised and conducted. So, in Bill’s case, he had been given a great opportunity, but needed to prove himself to gain the role on a more permanent basis. I kept this in my mind through interactions with Bill.

**Interacting with Gary Metway, Bill Houseman and RCCs – planning the senior management compliance workshop (negotiating DNR&M’s compliance meme)**

From the outset, it was patently obvious that Gary Metway and I were from quite different paradigm sets. I had initially met Gary in the first of the two meetings Cam, Willy Drake and I organised for Dam Safety Compliance. At the time, I was on holiday with my family and took a morning off especially for this meeting. I had assumed that in the meeting, participants could contribute perspective and points of view in a free manner as this meeting was more exploratory than conclusive. This was not to be. Gary was very passionate and forceful in his belief on the ‘compliance meme,’ the very meaning of compliance and the route to achieving that – Strategic Enforcement. “At the moment we are in the process of employing four Regional Compliance Coordinators who in Veg Management, at least, will move away from the Department’s poor track record in prosecution.”

\(^{83}\) Executive Management Group (highest level of management in DNR&M)
Bill, Gary and I proceeded to meet a number of times to plan the managers’ compliance meeting. My agenda was to include as much negotiation as possible in the event, Gary’s was to raise the profile of his approach to compliance (read enforcement) and Bill’s was to run a successful two days that resulted in a clear structure for compliance in DNR&M. In these meetings, I tabled my past interactions with Cam Duncan and the project that he had funded me to do, including the regional contact with compliance staff. Both Bill and Gary saw some advantage in gathering case study information, although Gary believed that, “Cal Mandrake has already done that in the internal audit he has just done in the Department.”

Early in our meetings, it emerged that Gary had a very legalistic view of compliance, which was largely due to his background in law and previous employment in the Queensland Police Force. He maintained that, “In this workshop, we need to demonstrate the dire situation this Department is in legally. We need the ombudsman, we need Crown Law, we need DNR&M Legal Services, we need case studies on the recent electrocution deaths with Energex at fault and we need the CMC involved. These managers need to know what the law really means and what is required to meet it.” Gary was keen to create an environment at the workshop where the sheer magnitude of managers’ responsibilities as described explicitly by a number of legal sources would negate all possibilities of ignoring ‘compliance.’ As Gary said to me many times, with conviction, “There is no room for negotiation here! These are the responsibilities of DNR&M and we need to take action in line with our legislation!” Gary’s line on enforcement was unwavering and his demeanour quite adversarial when this was questioned.

By contrast, I strove to include as much context from existing DNR&M staff activities and planning efforts in compliance as possible and endeavoured to create a workshop environment where Managers could ‘have a say’ in the obvious moves to operationalise the enforcement end of compliance. My aim was to increase the collaborative element of the interaction to maximise the relationship and ownership dimensions of the eventual outcomes.

Bill did not seem to have a strong agenda throughout the planning phase, but was very eager to include an effective mix of managers and operational staff at the workshop. He wanted to increase the prospects of a definite and actionable outcome to improve the compliance position of the department, and in turn improve his professional reputation.

My role in the planning meetings moved toward process facilitation and whiteboard recording. This extended through to drafting up proposals for the meeting agenda and inputs required. It was through this means that I continued endeavouring to include interactive workshop sessions rather than lecture style presentations, which seemed to be Gary’s preference. On several occasions, I suggested that, “This workshop is a negotiation process.” Both Bill and Gary strongly supported this notion, but on reflection later I should have explicitly explored further with them how we move from increased awareness about compliance to negotiating new roles for operational extension/education staff in how they might support landholder compliance with legislation, or vice versa, how compliance staff might support voluntary landholder change of practice.

I also committed effort to contacting each of the Regional Compliance Coordinators and meeting with them separately, and then as a collective, to develop case studies of the respective Regional Compliance Planning processes, complete with issues and opportunities. We also met together on two occasions as the workshop drew closer. Like Gary Metway, the four Regional Compliance Coordinators all had backgrounds in legislative enforcement, three in the police force and one in a Federal Government capacity. Individually, I found that each of the RCCs had a somewhat different interpretation of the way in which enforcement played a key role in enabling responsible NRM behaviour. Collectively,

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however, their paradigmatic approach to practice change was clearly based on legal positions and litigation – for them as a group, and particularly in a group with Gary Metway, change and responsible natural resource management is led by the law! At meetings with these officers, they explicitly rejected negotiation within the department as well as with natural resource managers as being an effective means to enabling ‘responsible’ NRM practice change.

The RCCs and I had what I would call a suspicion of each others’ motives, values and base belief systems. This became more apparent as the RCCs set up a parallel process of developing their own position paper on compliance to add to, and indeed counter, some of the arguments I developed in case studies. My contention is that due to the implicit nature of our different paradigms relating to practice change, among other things, our interactions were less productive than they may otherwise have been.

The planning process resulted in the following aims for the Senior Managers Compliance Workshop:

To provide senior central head-office and regional staff, who have regulatory compliance management responsibilities, with:
(a) an overview of the corporate risks/responsibilities associated with regulatory compliance management activities arising from DNR&M – administered legislation.
(b) awareness of the issues that face achievement of compliance across DNR&M regions and business groups
(c) opportunity to participate in planning and acting to move toward resolution of these issues (DNR&M 2003)

Figure 5.11: Senior Managers Compliance Workshop Aims – March 26th, 27th 2003

It was planned that the legislative and enforcement issues were to be presented first. The negotiation segment on the agenda, enabling managers to interact, debate and move toward considered agreement was to be subsequent to this. At the meeting on the 26th and 27th March 2003, however, Gary Metway and the Regional Compliance Coordinators did not conform to the times in the agenda effectively blowing out their allocated times, especially through the presentation of the RCCs’ position and recommendations. When I tried to reproach Gary Metway and the other RCCs on the blatant hijacking of the agreed agenda during the workshop, on two occasions I was aggressively rebuked and assured that, “The time for open discussion will still be available, just give us a bloody chance!” As time drew on, I began to feel squeezed out and realised that I had been deceived.

Consequently, the third aim of intending to give participating managers in the workshop the chance to contribute individual and business group perspectives, issues and opportunities, was not realised. With literally only minutes to spare at the end of the second day, was I able to facilitate an interactive session. Here, the managers identified that the key decision made at the workshop was that a Compliance Unit needed to be set up and managed by Bill Houseman. Further to this, however, some of the late discussion centred on the linkage of extension and education with compliance. Tom Dreschler led proceedings for a while saying, “The place of extension within this compliance agenda does not seem clear to me. I know that the extension strategy that staff put considerable effort into a couple of years ago had a lot of good foundational material in it about facilitating change. Why don’t we dig up the New Extension document and try to re-identify the role of extension for compliance?” Not surprisingly, there was considerable support for Tom’s suggestion and a recommendation from the floor that this idea be presented to the Integrated Resource Management Executive for endorsement and further action.
Without much space or time for debate or dialogue, the following actions and leaders were suggested for the development of the compliance unit;

1. A review of available resources – Bill Houseman;
2. A training plan – Carmen Rieman;
3. Role classification for compliance officers – Bill Houseman;
4. Extension/education/communication planning and strategy development – Greg Leach;
5. A compliance strategy document – Bill Houseman.

My role from this workshop was to lead the fourth recommendation, develop a project proposal and then present this to the Integrated Resource Management Executive, the management group with over-sight of business groups that contribute to NRM compliance. While it could be argued that the fourth action was suggested to appease myself and Tom (amongst other less vocal extension supporters), the subsequent strong support of the IRM Exec confirm the commitment of at least one section of DNR&M service delivery. Please see Section 7.2.1 for the outcomes of this.

5.4 Analysing compliance negotiations

5.4.1 Constructivism and memetics in compliance negotiations

The meme in this episode was ‘compliance.’ To progress the genetic metaphor, the dominant and recessive genes (on the compliance spectrum) were enforcement and extension respectively. The approach taken by Gary Metway and the RCCs was adversarial, and my efforts alongside Tom Dreschler (and some other managers) with extension were more collaborative. I believe that this negotiation style mismatch resulted in poor resolution of the linkage between these two areas of DNR&M business.

As the workshop progressed, it loomed apparent that for Gary Metway and the RCCs, my role in proceedings and in achieving an outcome was a threat to their agenda. At no time did they open discussion for capturing divergent views or for identifying opportunities, and they certainly did not want to allow me to facilitate an interactive process over which they would have little or no control.

On the other hand, my bias toward inclusive decision-making and open participatory-negotiation may have been misplaced. As discussions later with Tom Dreschler (General Manager) revealed, the large NRM reform agenda being passed through the Queensland Parliament, and driven by international agreements, was an inexorable trajectory that would not be diverted by managers within DNR&M. So to Tom’s mind, the compliance unit was an inevitability. My counter-argument, however, is that while it may have been inevitable, there are, to my understanding, more effective means of building ownership and support for a new way of doing business, that include participatory decision-making processes.

My interpretation of Gary and the RCCs is that their appreciation of the need for non-coercive/non-enforcement approaches to compliance are quite restricted by their instrumentalist paradigm for enabling change. If they were to engage with other paradigms and secure support for enforcement’s role in compliance, they may gain advantage through collaborative rather than adversarial interactions. From an ontological view, my constructivist leanings were in direct opposition to the RCCs’ instrumentalist position. Never, though, was this difference made explicit within the group, or with Bill Houseman. It was apparent to Gary Metway, who behind closed doors told me quite forcefully, “You have got no right interfering in this compliance agenda. We quite obviously have different beliefs and
understandings on compliance!” I commented that we were from different paradigms, and he said, “Yes, definitely. You and the people in your group out at Indooroopilly have no idea of the work that has to be done in compliance!”

Gary Metway’s assertion about my group is quite accurate, but I believe it is also a key descriptor of the very reason there has been a lack of cohesiveness between compliance (coercive) and extension (non-coercive) policy instruments in DNR&M. For participants at the workshop, I believe that this was also an issue. The RCCs made it obvious that their view on compliance has a strong bias toward the litigation and enforcement extremity of the compliance spectrum. It could be argued that those supporting the coercive side of compliance managed to communicate their perspectives more effectively at the workshop. Conversely, those in favour of a more balanced perspective including non-coercive instruments (myself, Tom Dreschler and several other General Managers) failed to bring this preference forward, and only managed to retrieve a very short time on the agenda to open ‘communicative space’ for wider consideration of the compliance spectrum. A further telling factor is that the non-coercive supporters did not have a clear advocate to present a convincing story about why enforcement alone will not achieve desired outcomes. The case-studies I completed in preparation for the workshop showed that a balanced approach was required, however, these were dismissed by Gary as distracting from the key aim of the event, which for him was to stress the legal responsibility of DNR&M managers. On reflection, it was remiss of me not to secure further supporters for the balanced view on compliance when planning the meeting. When the workshop was being delivered, it quickly became apparent that with only myself and Tom Dreschler as outspoken advocates for non-coercive instruments, our opposition to changes in the agreed agenda was easily sidelined. It could also be argued that the workshop aims, from my perspective, of opening some communicative negotiation space with General Managers internally was not the same as having an external stakeholder argue that DNR&M needs negotiation with the outside world in order to create effective collective action. Unfortunately, the need for critical self-reflection was lost. As an initiator/facilitator, in the end I was relegated to being powerless in influencing the process and outcomes.

5.4.2 Emergent learnings from compliance negotiations

Following are a number of conclusions from this research episode in terms of approaches to negotiation and the implications of this on the institutionalisation of extension:

1. The ‘compliance meme’ appears to have a high replicating ability as opposed the ‘extension meme’ at this point (early 2003) in the NRM reform agenda
2. The negotiation style differences between compliance (enforcement) staff and myself (an extension exponent) are different: Adversarial-Competitive vs Collaborative-Inclusive. This difference can compromise the capacity of both parties to contribute and interact effectively. The paradigmatic differences between the RCCs and myself (and others) in interactions perpetuated an adversarial approach and made opening ‘communicative space’ problematic.
3. Adversarial approach vs collaborative approach seems to extend to the memes themselves. The ‘compliance’ stakeholders were strongly adherent to the coercive enforcement end of the compliance spectrum, whereas myself and others supportive of ‘extension’ advocated non-coercive voluntary change. Through interactions with Gary Metway and the RCCs, the ‘compliance meme’ was interpreted and exchanged in an adversarial manner and was inextricably linked to power, coercion and conflict. The ‘extension meme,’ by contrast, was linked more with non-coercion and an aversion to conflict.
4. Compliance coordinators appeared instrumentalist in their approach to decision-making and planning processes with clear ‘right’ and ‘wrong’ positions. They believed there is no space for negotiation.

5. Managers showed considerable willingness to support the high political exposure and short-term needs of compliance and for operationalising enforcement to achieve compliance.

6. Managers showed considerable willingness (albeit in the short decision-making time on the second day) to support non-coercive instruments such as extension.

7. Planning the workshop as a negotiation process with Gary Metway, Bill Houseman and myself helped gain insight into different approaches to balancing strategic and communicative space. Gary was always strategic wanting to limit communicative space, I was always trying to move to open communicative space, while Bill seemed more accommodating, wanting to maximise the opportunity for safe communicative space.

8. Negotiating the negotiation process is effective for developing agreement between different paradigms (compliance and extension) on a plan for influencing managers to decide on necessary changes. However, an important conclusion is that satisfaction of all parties that negotiations have been effective depends on adherence to that agreement (or at least its collective adaptation) by all parties.

9. Generally, introducing a negotiation approach (to both organisational change and dealing with outsiders) is difficult: it is threatening to make internal conflict visible; there is a lack of a clear approach that people trust; people perhaps lack mandate/confidence; ‘going against the tide’ – resistance from people who feel it goes against their interests; shortcomings in presentation of the need/significance for negotiation, and; mistakes weaknesses in facilitation.

5.5 Responding to episodes: Challenges for further research

Conflict and power issues were critical determinants when resolving wicked problems central to both the compliance and NRI episodes. Constructivism and Memetics helped describe and interpret these organisational conflicts and associated negotiation processes. My intention in assessing the constructivism-memetics relationship within each episode was to advance my capacity to think about multi-stakeholder interactions as negotiation processes. The primary reason was to develop my capacity to engage with participants and enable understanding that when interactions were concerned with conflict, those involved may gain value from designing the conflict resolution processes themselves. However, making concerns about conflict explicit and encouraging participants to confront it up-front, may have repelled people, and strengthened their resolve to use approaches they are familiar with (or what they presume is expected from them): e.g. rational planning, logframe. Quite possibly, my understanding that an open mandate for using different measures for resolving the issues at hand was a certainty, may not have been shared by other participants.

Consequently, a way of thinking about and operationalising negotiations amidst the multitude of business groups, paradigms, epistemologies and memes remains an issue. Also, an issue was my capacity and approach as a facilitator. Key challenges from these two episodes centred largely on the role I was playing in helping instigate, organise and facilitate negotiation processes. One issue becoming apparent was the fact that I had not targeted ‘capacity building’ with negotiation concepts and skills. While Paul Mort had cautioned against deep involvement in reviewing negotiation literature, it was becoming quite apparent that I needed greater understanding and capacity with negotiation theory and practice.
Grounded theory development becomes limiting when my own capacity to enrol other people in planning and participating in negotiation processes is minimal, particularly where the complexities of multi-stakeholder dilemmas obviously require alternative approaches to those I was using.

Projects may be organised as a negotiation approach, however, introducing this thinking appears problematic. It was evident that participants in multi-stakeholder interactions leaned toward risk-aversion largely due to organisational histories and a desire not to be associated with failed processes. After working (and negotiating) with reluctant NRI group members and adversarial RCCs, an emerging question is ‘what are effective methods and a language for achieving progress in the confrontation between different negotiation approaches?’ A review of negotiation literature may assist. Organisational learning literature may also provide further insight here.

Negotiation style differences seem to hamper collaborative negotiation approaches. Decision-making approaches that are instrumentalist in nature see little space for negotiation and when these paradigms remain implicit, paradigmatic differences perpetuate dysfunctional interactions. This was particularly evidenced where managers called for further investigation of non-coercive instruments such as extension for achieving compliance, even though they were bombarded with departmental directives and persuasive arguments advocating the primary role of coercive measures for achieving responsible NRM behaviours. An emerging issue for theory development is how to enable better design (negotiation) of an organisational negotiation process, one that is able to make paradigm differences explicit and deal with these differences in an effective manner.
Chapter 6: Intermezzo I: Refocusing the line of inquiry

Conflicts over natural resources have always played a role in human society, but recent conditions have led to an increase in their intensity, public profile, and complexity. There are no more “resource frontiers.” Virtually every change of land use, new development, or expansion of any resource use now involves conflict (Ayling and Kelly 1997).

6.1 Refocusing the line of inquiry

This chapter aims to rethink the research line of inquiry, responding to learnings in episodes, as well as to the emerging challenges and changes in the NRM environment in 2003-4 which have impacted on the institutionalisation of NRM extension. Three years into this learning journey, the New Extension process seemed to demonstrate that learning/interaction based approaches for influencing organisational change relating to extension policy do not work. The need for brokering multi-stakeholder negotiation processes was emerging as an important consideration for the organisational positioning of NRM extension and also for extension practice in the contested NRM institutional environment.

Chapter 5 highlighted that while institutional projects can be organised as a ‘negotiation approach’, introducing this thinking appears problematic in multi-stakeholder institutional settings. Outcomes suggest that difficulties for implementing projects developed as ‘multi-stakeholder negotiation’ may include:
- moving away from organisational rituals may cause difficulties for some people;
- it can be threatening to make internal conflict visible for some parties;
- there is a lack of a clear trustworthy approach for dealing with differences/conflict;
- people may perceive they lack the mandate and/or confidence to conduct negotiation processes to address organisational change issues;
- the lack of leadership and the lack of any real support from powerful people may impact negatively on the perceived legitimacy of using negotiation processes to deal with conflicting agendas;
- some people may see negotiation as ‘going against the tide’ and apply some resistance as they feel it goes against their interests;
- ineffectual presentation of the need for or significance of negotiation may result in inadequate understanding and/or engagement in the process, and;
- mistakes and/or weaknesses in facilitation may result in suboptimal outcomes.

It could be argued that an overriding impediment in episodes to date was the absence of conditions conducive for learning and negotiation within the institutional settings of the NRM environment (see e.g. Leeuwis 2004: p.155 and p.172). A further impediment may be the lack of capacity for rallying stakeholders with divergent positions together to learn and negotiate collective outcomes. Moreover, this capacity deficiency, that appears to frustrate achievement of collectively negotiated outcomes in DNR&M, is most certainly a key limitation for effective organisational change.

Emergent issues from Chapter 5 were ‘how to enable better design of an institutional negotiation process?’ and ‘what are effective methods and a language for interfacing different negotiation approaches?’ Therefore, for purposeful inquiry into the organisational positioning
of NRM extension, further research is required to understand the negotiation practice(s) exhibited by agency staff (in DNR&M) and their dealings with other NRM institutional stakeholders. Value may be gained by setting these negotiation approaches within a framework (or model) of organisational change. Furthermore, the proposition that multi-stakeholder negotiation processes take place in hermeneutic arenas in the NRM institutional environment, complete with converging or competing memes and associated constructions of meaning, may assist this. Memes have been defined as small sets of instructions that produce behaviour. Efforts to inquire into institutional settings in which memes are exchanged may help us as NRM stakeholders understand our psychology and the evolution of our thoughts, technology, artifacts, art and knowledge (after Silby 2000).

The following exploration is based on my perceptions (following de Bono 2003) of what was emerging to be important as much as logic and defensible argument. By nature, I am a ‘resource investigator’ (Belbin’s Team Roles – see Belbin 2003) and preferentially search for new material to explain the current position. Hence, this intermezzo was necessary to draw conclusions from a range of literature and considerations that were impacting on my thinking through 2002-2004 about the influence of negotiation practices on the institutionalisation of NRM extension.

6.2 Understanding organisational change

As discussed in Chapter 3, by 2001 the Extension Strategy Working Group in DNR&M had identified that impediments to organisational change were far greater than the expectations of the extension strategy process and that the inability to negotiate within the departmental system hampered any possible achievement of successful outcomes. As further highlighted in Chapter 5, while projects may be implemented as multi-stakeholder negotiation, this does not guarantee success. It is therefore important to analyse the organisational literature for clues that may help contextualise and explain the key enablers and inhibitors in the episodes to date. The phenomenon of change within organisational contexts has been widely covered in the organisational and innovation literature and a critical review of this literature focussing on the areas of particular relevance to this study is presented below. My readings in the areas of organisational learning and learning organisations (including Agyris 1993, Argyris and Schön 1996, Braham 1995, Duesterberg 2001, Easterby-Smith 1997, Kerka 1995, Kaufman and Senge, 1993, Merron 1997, Pedler et al. 1996, Robinson 2001, Senge 1990, Senge et al. 1999, Smith 2001, Stehr 1992, Wycoff 1995, Watkins and Marsick 1993) strongly identified that, while the capacity of organisations in the NRM environment to learn was a limitation (covered in Chapter 8), higher order issues of organisational change were more relevant to understanding broad-scale change agendas such as those proposed by New Extension.

Holm (1995) argues that an organisation is a means to help align, or indeed reconcile the inherent contradiction between individual and collective interests as a means to getting things done. This way of thinking about organisations has been influential in rational choice theory (Elster 1979, Taylor 1987), agency theory (Libecap 1989, Williamson 1975), economic history (Chandler 1962, North and Thomas 1973), and institutional economics (Olson 1965, Williamson 1975) as well as organisational theory (Argyris in Bokeno 2003, Thompson 1967).

Organisations, while they are products of action, also constitute action. Thus, it is critical in this study to distinguish between process, or the act of changing or innovating, and product,
the entity, object or set of outcomes associated with the process. In general terms, organisational change can be considered from the perspective of the level or scale of change (e.g. characteristics or elements); as a model or framework (e.g. from a processual perspective, examining sequential processes and factors which evolve through time); or as a classification or typography of various types of change based on a key factor, element or cluster of elements (e.g. strategic or evolutionary change). These are investigated separately below.

### 6.2.1 Level or scale of change

Significant factors in understanding the overall change process have been recognised to include the degree of complexity within organisational levels and the scale at which change occurs (Fossum 1989, Quinn 1996, Rogers 1995, Rycroft and Kash 1999). It is clear that ubiquitous and large scale change programs impact in vastly different ways from small scale and isolated change efforts (Dunphy and Stace 1990, Ledford et al. 1991).

The traditional dichotomy into the inner and outer contexts of organisations arguably inhibits analysis of organisational change processes. Pettigrew et al. (2001) argue strongly that different levels of context need to be considered, along with the multiple related processes underway at these different levels. They further argue that a key source of change is the asymmetries between levels of context, where the intertwined processes often have their own trajectory, pace and momentum.

Issues of organisational granularity are especially important in making sense of relationships between the elements or system agents, in understanding the contextual attributes of the phenomena being examined, and in any substantive theory one might wish to derive from research findings. While authors such as Fossum (1989), Quinn (1996), Rogers (1995) and numerous others offer different perspective on the levels and scales of organisational change, Rycroft and Kash (1999) refer to five levels or types of sociotechnical systems associated with complex change processes: work groups; core actors (such as a regional NRM body or NRM government agency); networks (integrated formal organisations, work groups and informal relationships); complexes (integrated networks) and natural innovation systems. They maintain that each of these levels or types maintains a “locus of self organisation” where inter-agency or associations between system agents, in the uncertain and embryonic innovation phase is located largely at the level of autonomous individual entities (Rycroft and Kash 1999). Analysing the ultimate success of an organisational change initiative may be assisted by an understanding of and insight into the different social or structural levels within an organisation, and especially the relationship between individual change and collective change.

Another key element of the organisational change process that is important when considering NRM projects relates to temporal considerations. The rate or pace of organisational change processes has been extensively studied (Anderson and Tushman 1997, Kirton 1992, Rogers 1995). While Rogers defined the adoption rate as the “relative speed by which an innovation is adopted by members of a social system”, Kirton found a considerable time lag (2–3 years) between the first articulation of an innovative idea and acceptance by managers to proceed. This lag time between the introduction of a technology innovation and the emergence of a dominant design has been referred to as the “era of ferment” by Anderson and Tushman (1997). It appears that less consideration has been directed to the longitudinal dimension of innovation and organisational change processes which extend investigation beyond the more conservative boundaries of adoption or implementation (Avital 2000, George and Jones.
Pettigrew et al. (2001) call for research beyond the snapshot or episodic technique, claiming that there are too few “process studies of organisational change that offer a holistic and dynamic analysis of changing”. There is a paucity of longitudinal studies in organisational arenas involved with extension policy.

6.2.2 Models or frameworks of organisational change

Understanding organisational change can be assisted by a second perspective that considers models and frameworks which emphasise various phases or stages of the change or innovation process (Greiner 1972, Kotter 1996, Lewin 1951, Rogers 1995, Yin 1979). Each of these authors advocates models or frameworks that emphasise the sequential nature of the change process – from conception of an initiative through to its consolidation or demise. It can be argued, however, that the innovation process too frequently has been viewed only as a reasoned, linear and chronological series of steps, especially in adoption and implementation models. Yin (1979) and Rogers (1995) developed models with clearly structured phases which characterise the actions and decisions from an initial awareness of the need to innovate through to the routinisation of organisational elements supporting a change or innovation.

Some have provided criticism of such essentially sequential and linear approaches as being overly simplistic (Rothwell 1992), with claims that they ignore the importance of feedback loops (Olson and Eoyang 2001). As alluded to in earlier chapters, in this research change processes are viewed as iterative or cyclic, particularly in relation to the discontinuous change within the policy environment within which extension policy is set in the Queensland and Australian institutional networks. Therefore, an over-dependence on highly structured models or frameworks may be a limiting factor for explaining and indeed endeavouring to influence organisational change in the extension policy environment.

Nevertheless, models which propose more complicated pathways to organisational change still retain a certain pattern or structure, even though they may not be as rigid as the strict linear models. Of particular interest is Lewin’s model which describes three principal stages: “unfreezing”, or breaking down existing organisational structures and attitudes; “changing”, or implementing the new system; and “refreezing”, or stabilising the new system within the operations of the organisation. Kurt Lewin (1946) argues that complex systems can only be explored through action within the system, because a system’s reaction to changes reveals its characteristics, i.e. the really relevant issues frequently only emerge during the process of action, and would be missed through rigid planning (Hagmann et al. 2002).

6.2.3 Classification approaches

Classification approaches conceive of change from the perspective of a typography or classification system, that can be based on critical aspects or elements of the change process and group together several models or theories. It is important to note that different classification approaches have developed from particular contexts (e.g. social, business or industry settings), complete with their underpinning key elements, assumptions and principles. In this way, each brings interpretative strengths and weaknesses to a specific organisational change topic. For example, a typology of organisational change models, consisting of six categories: evolutionary, teleological, lifecycle, dialectical, social-cognition and cultural (following Kezar 2002), is presented below.
<table>
<thead>
<tr>
<th>Typology of organisational change models</th>
<th>Organisational change model examples</th>
<th>Organisational Change Focus</th>
</tr>
</thead>
<tbody>
<tr>
<td>Evolutionary</td>
<td>Organisational Fit Adaptive change approach</td>
<td>Social/subjective/ non-deterministic conception of change focussed on phases of change and influenced by environmental factors (Miles and Snow 1978, 1984, Siggelkow 2001)</td>
</tr>
<tr>
<td>Teleological</td>
<td>Scientific and rational management models</td>
<td>Technical/objective/deterministic conception of change influenced by re-engineering theories that emphasises planned approaches and focus on phases of change (e.g. Golembiewski 1979, Levy and Merry 1986). In terms of organisational strategy, the basic conception of change is technical, objective and/or deterministic</td>
</tr>
<tr>
<td>Lifecycle</td>
<td>Technological innovation models Partnership lifecycle models Lazy Eight (Holling (1995)</td>
<td>Focuses on an alternation between performance and learning and sees that social learning has different roles to play, depending on the phase of the dynamics of organisational change. A dominant phase in the model is the lifecycle, during which the focus is on enhanced performance, growth and consolidation (Hurst 1995). Furthermore, there is a developmental and systematic focus on change emphasising specific milestone phases of growth, maturity and decline (Greiner 1972), or in the case of partnerships in the NRM environment, Seed Phase-Initiation Phase-Execution Phase-Closure/Renewal Phase (Long and Arnold 1995). Lifecycle approaches emphasise the importance of individual identity and change through factors such as motivation and professional training (Bolman and Deal 1991)</td>
</tr>
<tr>
<td>Dialectical</td>
<td>Political and social interaction theories</td>
<td>Advocating strong leadership and visionary emphasis for change (Morgan 1997)</td>
</tr>
<tr>
<td>Social cognition</td>
<td>Sensemaking (Weick 1995 2001) Institutionalism (Scott 1995)</td>
<td>Focus on the complex and interrelated nature of change, the existence of multiple paradigms and realities within organisations (Cohen and March 1991). The influential role played by an individual with respect to the success of change and their use of a framework of tools: stakeholders and institutional relations; policy arenas; and policy discourses and practices (Vigar and Healey 2002).</td>
</tr>
<tr>
<td>Cultural</td>
<td>Multi-perspective views of organisational culture (Fitzgerald 2002, Hofstede 1998)</td>
<td>Focus on group norms and values and share with social-cognition models an assumption that change is a fluid and complex process, non-linear dynamic and unpredictable – “The hard to change values that spell success or failure”. Also targets representation of culture as a system rather than an entity.</td>
</tr>
</tbody>
</table>

Table 6.1: Contrasting Organisational Change Typologies (adapted from Kezar 2002)
Evolutionary classification schemes such as organisational fit and adaptive change approaches contrast strongly with Teleological typologies which emphasise re-engineering theories, scientific and rational management models leading to planned change. While these two approaches account for the majority of change literature, they contrast in their basic conception of change, i.e. non-intentional/deterministic, subjective/objective, social/technical. Their common focus however, along with lifecycle models, is on phases of change (Kezar 2002). Lifecycle models share with evolutionary models a developmental and systematic focus on change, but emphasise specific milestone phases of growth, maturity and decline (e.g. Greiner 1972).

Another dimension used to classify various theories or models of organisational change is the nature or rate of change. The incrementalist approach to organisational change promotes evolutionary rather than revolutionary change as it is underpinned by a gradual progression towards a new desirable state (Golembiewski 1979, Quinn 1980, Shaskin 1984). Discontinuous disruptions to organisational life are avoided by a measured rate of change, with various elements or sub-systems within the organisation allowed to adjust in small, manageable steps. Incrementalist approaches are premised strongly on additional elements, for example, values of order, employee inclusiveness, participation, building on existing knowledge, risk aversion, consensus and collaboration. Critics of the incrementalist approaches (e.g. Beer and Walton 1987, Peters 1991, Quinn 1996) point to their inward-looking focus and preoccupation with internal processes, and their neglect of the role of external environmental factors which increasingly contribute to a dynamic and radically shifting external climate. The imperatives posed by this unpredictable climate demand an alternative approach to the incrementalist organisational change model.

6.3 Organisational change for adaptive environmental management

Important for this research is whether incremental or revolutionary change processes are better suited to resolving wicked problems, or dilemmas, particularly those in the NRM arena. Given the evidence of limited levels of interest in proactively influencing extension policy, it is possible that incremental approaches may be needed to trigger a revolutionary change in the policy environment. From the above review, it appears that there is no obvious organisational change model specifically suited for implementing initiatives developed as ‘multi-stakeholder negotiation’ in organisational networks.

As we are concerned with organisations that aim to influence NRM, it is only fitting that consideration is given to the impact that the very nature of NRM, including its aspirational targets and substantive outcomes, has on change processes within these organisations. Johnson and Scholes (2002) posit that the speed of change within organisations is correlated with the change in their environment. It has been suggested that the pace of change in rural and regional Australia seems likely to accelerate and will require institutional reform that enables continuous improvement across the spectrum of human, social, natural, financial and physical capital (Macadam et al. 2004, Gleeson et al. 2004, Australian Government 2004, Fulton et al. 2003, Cavaye 2000). The increased pace of change is critical to future opportunities for R&D to support the creation of a lifelong learning culture within the Australian rural community (Fulton et al. 2000). Chambers (1994) suggests that the normal bureaucratic tendency is to standardize, centralize and impose top-down targets and thus impede or prevent the open-endedness, flexibility, creativity and diversity of civil society and
for the growth of participatory development. The project or program approach typical of bureaucracies exacerbates such tendencies (Leurs 1998 Dale pers. comm.). Chambers’ (1997) characterization of traditional community development bureaucracy and how institutions must change to empower people for interacting sustainably with the ecosystems on which they rely for their survival, is directly relevant to Australian organisations dealing with NRM (Oliver 2004).

6.3.1 Institutions and policy and the environmental epoch
Ison et al. (2004) suggested that there are few resource-management issues which are not affected by institutions. Institutions arguably shape all aspects of how resources are managed, but the increasing number and overlap of institutions along with increased pressure on environmental management give rise to complexity and uncertainty in policy and governance issues. Therefore, no individual or organisation is able to progress these issues in isolation. Röling (2000) argues that:

humanity is experiencing a change of epoch: simultaneous and qualitative changes in the relations of production, power relations, human experience and culture. These changes generate turbulence. This turbulence ruptures the values, concepts, approaches, models and paradigms that guide and shape institutions, causing uncertainty, discontinuity, disorientation, insecurity, instability and generalised vulnerability. To reverse their vulnerability, most organisations are struggling to build a new basis for their institutional sustainability. Hence the organisations need to innovate and build institutional capacity in the strategic management of institutional change (Röling 2000: Section 5 Para 2).

It is critical to understand that even though institutional frameworks span (or can exist at) different scales from the micro, local and regional to international conventions, they are not permanent. They are created and recreated through changing management practices, policies or evolving social values or norms. The verb ‘to institutionalise’ can be used to describe the process(es) by which these patterns of behaviour, values and norms emerge, become represented, embedded, replicated and changed in that context. Moreover, NRM dilemmas need to be considered within the policy arena to have distinctive properties. Dealing with competing claims inherent to NRM dilemmas represents a new challenge, which may force policy makers to promote reflexive institutions\(^8\) that correct the consequences of previous policy directions (Ison et al. 2004).

Taking the argument of reflexive institutions further, some suggest that, as NRM is complex and that all forms of knowledge are contestable, there is increasing emphasis on evolving organisational policy processes which possess a continuing capacity to adapt, refocus and absorb new ideas. However, while there is evidence that this agenda is being paid some heed in the rhetoric of policy makers, in reality many factors serve to limit its transition into practice (Perez and Groome 2000, Ray 2000). Basing their argument on research evidence, Johnson and Scholes (2002) maintain that strategies within organisations more typically develop in an adaptive fashion, and build on existing strategy, changing gradually through time. They see that ‘taken-for-grantedness’ is one of the major problems in trying to develop innovative organisational strategies. The institutional paradigm influencing NRM in Australia has been quite conservative (Lane 2006). Innovation is likely to require the questioning and challenging of basic assumptions, which can be uncomfortable for those who attempt it and threatening for those who do not welcome it. Kingma (2000) argues that institutional analysis,

\(^{85}\) And organisations, I would argue
because it is concerned with beliefs and values, by definition requires a discursive approach in which ‘the story being told’ is the key to convey the subtleties of the underlying institutions. Furthermore, he suggests there is no one correct conclusion. Which institutional factors need to be changed is coloured by judgment and beliefs about what is appropriate or failing (Kingma 2000, Kingma and Benyon 2000).

The term ‘stakeholder’ has an important conceptual role in developing and analysing NRM policy processes. The term is not simply a substitute for ‘actor’ but inclusively describes all those affected by a problem or event in a policy realm, including those who may not be active but who have a stake as yet undeclared (Vigar and Healey 2002). The ‘stakeholder’ term also includes future generations and non-human interests. The issue of attempting to incorporate ecological factors and the interests of future generations is problematic, although Dryzek (1998) argues that, for practical purposes at least, we might consider signals from nature as having agency. Nevertheless, this view suggests a form of advocacy is necessary to translate ecological signals into discursive realms (after Vigar and Healey 2002). Thus, key actors in overall command of policy processes must operate reflexively, or in ways that encourage communication and participation (and reflexivity) across traditional policy sector boundaries.

6.3.2 Science for adaptive management and resilience
Jiggins and Röling (2000) argue along with many writers that:

the nature of change is seen as generating fundamentally new kinds of irreducible uncertainty. The conventional tools of risk assessment, planning and design, and the methodological and explanatory reductionism of conventional science are held to constitute an incomplete, inadequate, and an inappropriate toolbox for the construction of the future in situations in which surprise becomes increasingly determinant of outcome (Jiggins and Röling 2000:2).

These authors review various others who have described this crisis. Funtowicz and Ravetz (1993) propose ‘post-normal science’ in the face of great uncertainty with high stake issues which goes beyond ‘normal’ where science is only for ‘solving puzzles’ or giving of situation-specific advice. With postnormal science, the scientists themselves are intensely involved in societal processes, discussions and innovation (processes of network building, social learning and negotiation) (see Leeuwis 2003 2004). Beck (1994) calls for reflexive modernization, i.e. deliberate self-reflection about the future we are designing in our current ‘risk society’ which includes deliberate social construction of the way forward and the critical realisation that science is widely understood to have become part of the problem. Lubchenco (1998) identifies the human-derived ‘eco-challenge’ as the new social contract for science with the quest of enabling human survival through collective understanding of the human impacts on the biosphere and resultant collective adaptation of human activity. Capra (1996) demonstrates that because humanity is part of the whole ecosystem, our impacts on the complex web of life fundamentally influences human survival, but alarmingly a pathological clash between economics and ecology means that humanity is receiving the wrong feedback from the marketplace.

My proposition is that adaptive management can provide the impetus and rationale for enabling the reflexive institutional and organisational environment that is conducive to learning and negotiation of sustainable NRM amidst the complex systems management crisis that Jiggins, Röling and others identify. Adaptive management is now recognised internationally as a systematic way to continually improve management policies and practices by learning from the outcomes of operational programs (learning by doing) (Holling 1978).
Adaptive management is a mode of operation in which an intervention (action) is followed by monitoring and learning, with this information then being used to design and implement further interventions (acting again) to achieve a given objective, or maybe even modifying the objective itself (Alcamo et al. 2003; Walters 1986). Folke et al. (2002) argue that successful ecosystem management requires monitoring and ecological understanding and institutional capacity to respond to environmental feedback (Hanna et al. 1996, Berkes and Folke 1998, Danter et al. 2000) and the political will and perception to make such management possible. Instead of command and control treatment of natural resources which blocks out feedbacks from complex adaptive ecosystem, adaptive management has the potential to avoid the “pathology of NRM” (Holling and Meffe 1996), that threatens the existence of many social and economic activities, by responding to and managing this feedback. The boundaries of the particular place and the scale at which observations of the ecosystem are made are defined by the pragmatic needs of the observer. Thus, resilient ecosystems require the application of adaptive management principles and practices to institutional structures that match ecological and social processes operating at different spatial and temporal scales and addressing linkages between those scales.

Adaptive management proceeds in a stepwise fashion, responding to changes and guided by feedback from resource dynamics, and thus allows for institutional and social learning and the development of a collective memory of experiences (Lee 1993). Cumulative memory provides a platform for social responses to ecosystem change, and in an iterative manner increases the feedback mechanisms necessary for flexible and adaptive responses, particularly during periods of crisis and reorganisation. While adaptive management draws on experience, it also allows for novelty and innovation. Resource users at multiple levels are provided with a repertoire of general design principles to aid in the design of new institutions to adapt to changing situations (Ostrom et al. 2002, Berger et al. 2001). Adaptive Management tools that help enable novelty and innovation include structured scenarios and active adaptive management. Scenarios help people imagine optional but plausible futures and the pathways and steps required to reach them. Through envisioning multiple alternative futures and tactical steps that might lead to or avoid particular outcomes, stakeholders can devise resilience-building policies. Active adaptive management considers policy as an experimental process that is designed to build or sustain resilience. Active adaptive management requires, and facilitates, a social context with flexible and open organisations and multi-level governance systems. This allows for learning and increased adaptive capacity to be realised without nullifying future development possibilities (Folke et al. 2002).

6.3.3 Adaptive organisational change model
While there is merit in each of the organisational change typologies shown in Table 6.1, for this research the lifecycle model will be used due to its strong connections between organisational and ecological processes and evidence from three research episodes (Chapters 3 and 5) which have each completed a ‘lifecycle’. Lifecycle typologies are very appealing because these approaches deal with the project mentality of DNR&M organisational processes (Dale pers.comm.) in which major initiatives, such as New Extension, wax and wane in the myriad of overlapping and competing agendas of different groups in the large bureaucracy.

Hurst (1995) applied the ‘lazy eight’ model of ecological dynamics developed by Holling (1995) to organisational dynamics on the premise that change processes in organisations mimic lifecycle dynamics of ecological systems (e.g. seeding, evolutionary growth, and reseeding model – see Fischer et al. 1994). Therefore, in an institutional context, the lazy-
eight model represents the waxing and waning cycles of *learning* and *performance* as initiatives alternate between the start-up and growth phases, consolidation, the performing and the slowing phases of their lifecycle (see Figure 6.1). This transformational model of organisational change has been contrasted strongly with other schools of organisational strategy (e.g. Porter (1985)). However, despite issues with terminology (e.g. ambiguity surrounding terms such as charismatic leadership and conservation), the lazy-eight responds most effectively to the claims by Lubchenco (1998) and Capra (1996) that human organisational systems need the capacity to respond to ecological as well as market signals.

![Organisational Eco-cycle (After Hurst 1995 and Holling 1995)](image)

The lazy-eight may be applied to the organisational environment surrounding the development, implementation and life phases of an initiative (e.g. New Extension, Chapter 3). The lifecycle may begin with an idea in the aftermath of a failed (or successful) initiative where confusion prevails over what went wrong, or what may be considered to be a gap requiring improvement. Usually operating informally, one or a group of pioneers lead the development of this idea further to a ‘proof of concept’ stage where it becomes apparent that the idea represents a good choice of action. As senior decision-makers become convinced that the initiative is worthwhile, the organisational support for the idea is consolidated and the initiative is institutionalised. The initiative is then implemented and embedded in the hierarchical framework as a coherent instrument to aid survival in a constantly changing (e.g. competitive) environment. In this phase, the capacity of the organisation to adapt or learn is usually limited (particularly in a large bureaucracy like DNR&M). Through time, internal and external environmental conditions change, and a small impulse from one or both of these environments is enough to catalyse a crisis requiring a transformation of direction. Through the crisis confusion predominates and this leads to a new, ‘post-normal’, phase of learning (including discussions about values), wherein ‘loosely coupled networks’ of people attracted
to the subject emerge, with some taking a (charismatic) leadership role. Transformational learning and renewal are often best sourced from such networks. As they undertake another iteration of the lazy-eight, these enthusiastic leaders and networks play a pioneering role and develop these new ideas (perpetuating the entrepreneurial action demonstrated by pioneers in the previous cycle). In this manner an innovation is consolidated into a new lifecycle, and actors are able to develop a ‘group story’ which interprets and explains the reasons behind successful, mediocre and failed innovations (Following Jiggins et al. 2007).

In this way, the lazy-eight lifecycle model identifies stages experienced in the New Extension initiative and is a useful means of conceptualising and explaining extension policy at a meta-level of organisational change. While the longer-term realities of efforts to institutionalise extension policy can be explained by the lazy-eight model, it seems to miss the intentionality of a normative model pursuant of adaptive management and continuous improvement in the intermediate-term. For instance, at each step along the lifecycle how do enthusiastic leaders or loosely coupled networks organise their efforts? How do they access information, plan and implement ideas, and probably most importantly, how do they evaluate achievements at each step along this pathway? In the next section, the Adaptive Management Framework is put forward as a means of operationalising the lazy-eight lifecycle model in the context of continuous improvement.

6.3.4 Operationalising the Lazy-Eight Model with the Adaptive Management Framework

Guidance in applying adaptive management to NRM can be gained from the research conducted by the Cooperative Research Centre for Coastal Zone Management. The Coastal CRC reviewed the theory and practice of adaptive management in response to the Australian Government’s promotion of adaptive management through the programs for achieving regional NRM such as the National Action Plan for Salinity and Water Quality and the Natural Heritage Trust. The CRC identified that many NRM stakeholders found it “surprising that, despite its simple logic and wide acceptance as the way forward, the effective application of adaptive management principles and practices in NRM regions proves challenging and elusive” (Leach et al. 2006). CRC researchers proposed that one reason may be the disconnect between the capacity of current political and funding mechanisms and the complex and changing needs of natural and human systems in the wide variety of Australian catchments. Another reason may be limited experience and capacities for achieving coordinated outcomes from the multi-stakeholder processes required for democratic NRM governance. CRC researchers endeavoured to address such challenges by reviewing accepted adaptive management methods and identifying effective approaches for the Australian context. The Coastal CRC developed the adaptive management framework (AMF) as a normative model that comprised six logical components including: Current understanding (Information collation); Systems analysis and vision; Plan making; Implementation; Monitoring and reviewing; and the core components of People and processes (See Figure 6.2). The core components are at the centre of the whole process for facilitating the achievement of adaptive NRM outcomes.

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86 As a term, charismatic covers one aspect of leadership drive. My preference is to use enthusiastic as a replacement term
Coastal CRC researchers tested this framework through investigating the awareness and application of adaptive management principles to regional NRM settings. They found that the AMF “is generally considered the preferred option for integrated NRM in complex situations and for managing collaborative activities with stakeholders … the AMF provides a mechanism for longer-term improvement of processes and practices among regional NRM stakeholders and institutional networks for achieving targets in the regional NRM plan” (Leach et al. 2006). A number of barriers were identified and tools such as network mapping and a relational database were developed to minimise uncertainty around roles and responsibilities and alignment of regional stakeholder efforts. Key recommendations for streamlining and enhancing NRM in regions across Australia using the adaptive management approach include the need for: a national roadmap that guides multilevel implementation of adaptive management principles; monitoring and review of adaptive management to enable adjustment and improvement of regional NRM processes; and collective emphasis on facilitation of network building, learning, negotiation and process management, the core components of the AMF.

Of critical importance was the finding that wider ownership and commitment of resources to core AMF components will improve adaptive management through more effective collaboration and collective decision-making. This is essential for developing effective professional relationships. NRM stakeholders will gain value from increased trust and reciprocity, which in turn will lead to improved collaboration, collective decision-making and convergence around complex issues at all scales. Further benefits include better capacities to deal with transitions with staff changes and as program directions alter. The development of a common language and context for thinking about and applying all components of the AMF in regional NRM will also be a major advantage (Leach et al. 2006).

The AMF is a proven model for facilitating NRM outcomes in the face of uncertainty. My argument is that the cyclic continuous-improvement nature of the AMF is well positioned as an outcomes-focused process tool that drives each step of the lazy-eight lifecycle model. A temporal way of describing this is as ‘short-lifecycle’ continuous-improvement processes (e.g.
3-6 months) that rest within each phase of ‘longer-lifecycle’ organisational initiatives (e.g. 3-4+ years). The benefits obtained from using the AMF in this way would be gained through rigorous learning at each step such that the longer term outcomes are positive for institutions as well as the environment. Note that this proposal is similar in principle to the Panarchy hypothetical model, however, while it purports to integrate cross-scale ecological, economic and social dynamics, Panarchy’s focus is primarily ecological (see Janssen 2002).

**6.4 Adaptive management and organisational change**

As identified by Leach et al. 2006\(^{87}\), Allen and Curtis 2003 and Jiggins and Röling 2000, while the theoretical logic of adaptive management appears robust, its implementation needs to be strongly supported by institutional reforms fostering a culture of experimentation and reflection, as well as information and support to help stakeholders understand and incorporate an adaptive management approach. Such reforms may be critical for institutionalising policy instruments such as extension. Following the lazy-eight lifecycle model of organisational change, consideration must be given to the inhibiting and enabling features of a ‘loosely coupled network’ that may help embed adaptive management approaches.

**6.4.1 Knowledge and power**

The role of power in driving (or impeding) organisational practices that encourage ‘learning-by-doing’ through experimentation and critical reflection is critical for understanding the enablers and impediments of adaptive management. It is important to consider the influence power can have on information processes and other dimensions of organisational change. Baumann (1999) highlights the difficulties in assuming people in an organisation are willing to share their knowledge freely with other actors (including organisational staff). She claims that it is more realistic to assume actors will not be prepared to reveal the knowledge from which they derive their power. This has implications for how to approach negotiation, knowledge management and organisational learning (Baumann 1999). Moreover, it has been recognised by Stiglitz (1999) that capacity building or conditionality imposed from the outside will rarely produce lasting change, but only undermine people’s incentives to develop their own capacities. First generation knowledge management strategies focus on systematising and controlling existing knowledge and knowledge sharing within an organisation. Second generation knowledge management strategies shift towards effectively sharing power, thus enhancing the conditions for innovation and knowledge (co)creation (McElroy 2000).

Interestingly, Binney (2001) argues that organisations are shifting from management based on compliance (coercive power) to management based on (non-coercive) self-control and self-organisation. They are also shifting from utilisation of already known knowledge to the creation of new knowledge, and from pure technology knowledge management applications to also include process applications. Foucault (1977) suggests that power is intertwined with knowledge. “Power and knowledge directly imply one another … there is no power relation without the correlative constitution of a field of knowledge, nor any knowledge that does not presuppose and constitute at the same time power relations” (in Leeuwis 2004:27).

Leeuwis draws on Giddens’s (1976) definition of power which breaks power into two forms: as transformative capacity and as domination. Power as transformative capacity refers to the

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\(^{87}\) Note: While this report was published in 2006, at the time of writing this intermezzo, the findings presented here were largely identified.
fact that every human being has the capacity to alter the course of events and get certain things accomplished. Leeuwis aligns this notion of power with the concept of ‘human agency’ which:

attributes to the actor (individual or social group) the capacity to process social experience and to devise ways of coping with life, even under the most extreme conditions of coercion. Agency, which we recognise when particular actions make a difference to a pre-existing state of affairs or course of events, is composed of social relations and can only become effective through them (Long 1989 in Leeuwis 2004:108).

In relation to transformative power and human agency, Leeuwis (2004) maintains that even though people can creatively use their agency, their capacity to transform is constrained in a number of ways. Their ‘room for manoeuvre’ (following Long 1989) is conditioned by their interpretation of the natural and social circumstances they find themselves in. By contrast, enabling conditions provide opportunities for people to exercise their use of agency. The balance of these constraining and enabling factors defines ‘social structure’ (Leeuwis 2004). This conception of power strongly correlates with Coutts (1994) in a review of extension policy in DPI Queensland (1987-1991). A key issue identified was the need to understand and influence the power related ‘constraining’ and ‘enabling’ conditions in the Queensland Government and stakeholder networks at that time.

Power as domination is explained by Giddens (1976) to mean the capacity to achieve outcomes through controlling the agency of others. Knowledge is a source of agency, where the accessibility, currency and relevance of this resource can be either empowering or disempowering. Knowledge can also be seen as structure where the demand characteristics of users shapes the very development, accessibility and exchange of knowledge, which in turn strongly influences the properties of institutions, laws and/or other organisational attributes. Furthermore, knowledge can be a resource of tool for domination, whereby some actors impose their knowledge on others and influence their sense of agency (Leeuwis 2004).

Leeuwis (2004) warns that attempts to dominate epistemic communities with supposed superior knowledge (e.g. Extensionists versus farmers, experts versus lay people or regulatory bureaucrats versus extension practitioners) can lead to disputes and conflict as to the validity of different knowledge sets. These differences and disputes may also be related to the social construction of knowledge with claims influenced by:

- Self preservation interests – e.g. protecting personal and professional reputations
- Group interests and identity – e.g. competing institutes or interest groups striving to reinforce their identity and credibility

Important here are considerations of knowledge and ignorance where people from different interest groups (or scientists from different disciplines) interpret and define the same problem in different ways. As a consequence, they use the conceptual and knowledge resources at hand, but ignore others outside their disciplinary range – hence introducing an area of blindness or ignorance (Leeuwis 2004). This in itself can be used as a form of knowledge domination where only favourable knowledge resources are mobilised by providers with the express purpose of achieving their own preferred outcomes. Interacting stakeholders often struggle over knowledge claims (a claim for whose knowledge is right, best or closer to the truth), however, they tend to do so on the basis of rather sketchy information and images about each other (Leeuwis 2004). Their epistemological position and the elements of data, information, knowledge or wisdom (Bierly et al. 2000) are rarely transparent. As a
consequence, each needs to make an estimate of the validity of these knowledge claims, complete with a level of uncertainty. When different stakeholders become engaged in struggles over knowledge claims, they can gain considerable insights, thereby enhancing their room for manoeuvre and (sense of) agency.

6.4.2 Confusion as neo-liberal influences distort power and democracy under regionalised governance
Struggles over knowledge claims and the dichotomy between power as transformative capacity and power as domination are crucial considerations when we consider conducive conditions for learning and negotiation within the increasingly regionalised institutional NRM environment. Lawrence (2006) observes that Australia has followed global trends where there has been an enormous ‘shift’ toward decision-making at the regional level. Regional governance is about structures, processes and strategic decision-making outside organisations traditionally given power to govern, increasingly through multi-level partnerships, knowledge exchange, devolution of decision-making, and ‘joined up’ inter-institutional arrangements. Coalitions and networks of self-governing actors capable of redefining relations between institutions at the local level are steadily replacing bureaucratic and technical accountability and government authority. However, the governance of NRM represents something of a paradox across rural and regional Australian communities, with the room for manoeuvre of stakeholders at the regional scale confounded by contrasting ideologies, namely the individualist ideals of neo-liberalism versus the social organisation and collective action of the regional model of governance (Gray and Lawrence 2001).

Edmonson (2003) suggests that as landholders constantly seek to redefine their position within the context of globalisation they are faced with contrasting conceptions of power. Traditional rural literacy sees farm and land as symbols of a lifestyle that had particular hopes (land ownership that crossed generations of a family) and value (land ownership providing particular privileges within an agrarian democracy). Traditional rural literacy continues to have a certain nostalgic power, but has become displaced by a neo-liberal rural literacy which reads farms and landscapes through a language of efficiency, mass production, commodification, and profit, and represents rural communities as lacking if they are not equipped with a full range of opportunities for consumerism.

At the core of the global economy concept is the philosophy of economic rationalism or neo-liberalism. While the benefits of moves toward neo-liberal political regimes are debatable for Australian landholders and are the subject of considerable scrutiny (see Lawrence and Gray 2001, Higgins and Lockie 2001, Chesters 2004), there is little doubt that it has fundamentally influenced rural and regional communities. Power has reverted to a more diffuse idea where economic efficiency should reign supreme and that private profit should dominate all other values, as presented by corporates, supermarkets and food outlets. Edmonson (2003) further argues that while trade liberalisation has led to economic growth in Australia, it has come at the expense of social and environmental sustainability. Woodhill (2004) sees power issues rooted in democracy and claims that power structures in current forms of liberal democracy have biased decision-making against sustainability, with the political system tending to appease powerful economic interests at the expense of the overall wellbeing of the majority. Some even see positive correlation with the plight of rural Australia under neoliberalism and the fall of Rome (Davidson and Grant 2001).

On the one hand, the rise of neoliberalism and its effects has led to the implementation of policies based on economic individualism: the principle that people will bring on
development for their regions if markets are freed sufficiently for them to do so. An overall trend in rural and regional Australia as a result of neo-liberalism has been towards individualistic policies, those which look to individuals and their capacities to organise development for themselves (Gray and Lawrence 2001). This is not without opposition. George et al. (2003) argue strongly that:

Services that underpin our social democracy have been outsourced. Public utilities, built up by communities over generations, have been sold off to overseas companies. Services are being ripped out of rural communities in the name of efficiency. Economic efficiencies, rudely measured and constructed, have pushed out concerns for social equity, people's rights, and citizen participation. Competition is now the key value: a value and a virtue to be recognised everywhere: in schools, hospitals, and in local, state and federal government services. Yet for all this, in most countries trade liberalisation has not even produced positive economic outcomes! (adapted from George et al. 2003:1).

On the other hand, regionalised governance is enabling coordinated decentralisation where partnership arrangements allow for multi-level power re-alignments (‘empowered participatory governance’) with the ‘blessing’ of the state, which is eager to mobilise popular participation and the resolution of complex local problems through the process of reasoned deliberation (Fung and Wright 2003:24 in Lawrence 2004).

Not surprisingly, numerous authors have reviewed and critiqued confusions created by regionalisation of NRM across Australia and have identified a range of contradictions and inconsistencies (e.g. see Lawrence 2004, Bates 2003). It is possible that the institutionalisation of extension for NRM has been influenced by the lack of clarity for prevailing power configurations of institutional players in the throes of regionalisation. Furthermore, it is unclear what this means for institutional stakeholders’ conceptions of power and their locus of authority at they interact within multi-stakeholder processes.

6.4.3 Subsidiarity: Finding the right levels of governance
Understanding the effects of regionalism for NRM requires a better understanding of the roles and relationships amongst different levels of government in the Australian Federal system. Lawrence (2004) argues that the devolution of power and authority from central governments to sub-national bodies has been a logical extension of the subsidiarity principle. Subsidiarity is the policy principle that government functions, services and decision making should be administered at the lowest level of government that can feasibly exercise that function, to the maximum extent possible consistent with the national interest (Australian Premiers and Chief Ministers 1991 in Galligan 1995; Wilkins 1995). In the 1990s, Australian governments adopted *subsidiarity* as one of the four key pillars of modern intergovernmental relations – but largely to mitigate against continued drift of responsibility downwards from the Commonwealth to the States, and/or return of responsibilities upwards from the States to the Commonwealth, especially when there was a risk of overlooking important governance deficits at the local and regional level (Brown 2002). The subsidiarity principle is internationally recognised (Grewal et al 1981, Bermann 1994) and stems from the theory that each public good should be provided at the lowest scale of government consistent with no spatial spillovers into adjacent regions (Dollery 2002). The result is the emergence of hybrid institutions featuring collaborative arrangements between a host of government, business and community entities creating a complex web of institutional reconfigurations in which the state continues to play an important role in the provision of resources.
It appears that the subsidiarity principle, while recognised by higher levels of Australian Government since the early 1990s, has not been strongly articulated through other levels of Government, particularly in relation to the process of regionalisation of NRM bodies. As a wicked problem, NRM poses enormous challenges for subsidiarity requiring coordination and cooperation across the horizontal and vertical dimensions of policy and institutional systems and structures including:

- horizontally across administrative boundaries;
- horizontally between agencies and departments within the same level of government when management components of a single natural system is fragmented between them;
- horizontally between government and non-government stakeholders who affect, or are affected by, natural resource management, and;
- vertically when responsibility for management of the processes of an ecological or spatial natural unit rests with different levels of government and/or private actors (Murray 2005:28-29).

This rationale tests long traditions of perceived rights and assumed power that different government, regional, industry and community group stakeholders may have held. A key issue that emerges from this is the call for interaction and decision making across multiple scales and (inter and intra) institutional and organisational boundaries. Cohen (1998) argues that the most pervasive scale-related obstacle to success with community-based environmental governance is (paradigm) plurality and proposed that its solution lies in deliberative discourse. Such discourse relies on “establishing conditions of free public reasoning among equals who are governed by the decisions” (Cohen 1998, p.186).

The reality of NRM governance within Australia’s federal system involves a complex system of multiple ‘nested’ or polycentric decision-making arrangements (versus neatly hierarchical) being carried out concurrently across a range of political decision-making levels (e.g. national, state, region, local) and horizontally across a fragmented array of territorial and sectoral areas (Bellamy and McDonald 2005). Interestingly, recent studies throw serious doubts on the capacity of the regionalised NRM governance model to reduce conflicts and transaction costs (Lubell 2004) and to share power equitably (Lane et al. 2004). This may be largely because, while the principle of subsidiarity has attracted widespread support, it has not led to long-term political and institutional changes (Hudson and Brown 2004). Therefore, efforts to operationalise multi-stakeholder negotiations in NRM institutional environments need to take into account the ambiguity in power structures, key positions, levels of authority or accountability frameworks in the regional governance model. This may have considerable impact on the perceived sense of agency different NRM institutional stakeholders possess and/or exhibit.
Implementing adaptive management as a process driver for enabling organisational change

As identified above, Leach et al. (2006) discovered that the ‘People and Process’ core components of the Adaptive Management Framework, comprising facilitation of network building, learning, negotiation and process management were commonly identified by regional NRM stakeholders as being a major limitation to operationalising adaptive management. In the following sections, nested systems, autopoiesis, Communities of Practice, integrative negotiation and a reflexive negotiation model are proposed as (conceptual) tools to aid the facilitation of adaptive management and thereby meet the challenges of subsidiarity.

The conceptual tension between engagement processes that facilitate cooperation through consensual arrangements (including participatory methodologies such as PRA, AKIS, RAAKS, platforms and ecological knowledge systems) and the realities of human avarice (including power, greed, agency, competing agendas and conflict) is fundamental to this research. One option for bridging this gap is the consideration of NRM stakeholder networks as ‘nested systems’.

Systems thinking theory considers systems as whole, evolving, emergent and nested (following Capra 1979). An aligned concept is that of a holarchy which is comprised of ‘holons’ (or nested systems) as proposed by Koestler (1967). Every system can be conceived as an autonomous entity (the insiders) and an integral part within the hierarchy of a larger system (the outsiders). Nested systems face the dilemma of whether they should be integrating with other systems, or contesting space. As systems are human constructs, their boundaries are always arbitrary and often negotiated amongst the stakeholders in those systems (Jiggins and Röling 2000). This negotiation process is often ongoing requiring new agreements as the boundaries of the nested systems they are dealing with change. Following are key attributes of nested systems:

- The system is discriminable from its environment. Components belonging to the system can be discriminated from environmental components by the system and external observers.
- The components of the system are determined by the system. Components belonging to the system are identified as such by processes intrinsic to the system (self-reference).
- The system is dynamic. Interactions and transformation of components belonging to the system are determined by the system.
- The system dynamically maintains its identity. System processes work to maintain the integrity of the system.
- The system intrinsically produces its own components. Components from the internal or external environment are altered or transformed by system processes to make them functionally and identifiably parts of the system.
- The components produced by and forming the system are necessary and sufficient to produce the system: The system’s self-production is autonomous (Hall 2005:11).

At one scale, considering NRM stakeholder networks as ‘nested systems’ carries the strengths of systems thinking where purposeful social structures (stakeholder networks) are operationalised to deal with the complexities and paradoxes of natural phenomena (e.g. NRM). Nested systems can employ systems thinking using learning and systems models to explore problematic situations and enable debate leading to accommodation between ideas.
and the maintenance of relationships (Metcalf 1999). An additional benefit is that of autopoiesis (Maturan and Varela 1992), or the claim for self-organisation where ‘nested’ social systems determine their own form and process (Luhmann 1995).

Autopoiesis is self-reproduction – maintenance of a living organism's form with time and flows. It is a special case of homeostasis and relates to a systemic definition of life. The concept is frequently applied to cognition, viewing the mind as a self-producing system, with self-reference and self-regulation which evolves using structural coupling (Lucas 2001:14).

Autopoiesis has been viewed negatively in social science studies and has been associated with issues such as self-referentiality (van Woerkum 2000), tunnel vision, blindness, and looking at the world only through one’s own lens (Mingers 1995, Leeuwis 1995. My argument, however, is that organisations can be autopoietic, vis-a-vis an organisation: is discriminable from its environment; determines its components; is complex; is dynamically self-regulating; intrinsically produces its own components (e.g. training, procurement); self-produces components necessary for production of the organisation (e.g. written procedures), and; is a self-produced system that is self-sustaining over time (after Hall 2005).

According to Luhmann (1995) autopoietic social systems are based on the idea that, just as biological systems continually reproduce themselves through the ongoing production of cells, so do other human systems, through the self-reproduction of their basic elements.

The [social] system is formed out of unstable elements, which endure only for a short time or even, like actions, have no duration of their own but pass away in their very coming to be...An adequately stable system is composed of unstable elements. It owes its stability to itself, not to its elements; it constructs itself upon a foundation that is entirely 'not there;,' and this is precisely the sense in which it is autopoietic (Luhmann 1995:47-48).

Following Luhmann (1995), the communicative actions of people are constituted (but not defined) by society, and society is constituted (but not defined) by the communicative actions of people. Society is people's environment, and people are society's environment. Thus, it can be explained how persons can change society; the influence of the environment (the people) onto the system (the society), the so-called “structural coupling” (Luhmann 1991). My argument is that in this way, organisations maintain their existence through an on-going process of decision-making, continually establishing their own identity while distinguishing themselves from their environment(s). Thus, autopoietic organisations are sustainable over historical time, self-regulating and self-produce as a hierarchically nested organization within the wider institutional environment (after Hall 2005). At a broader scale, these ‘nested systems’ operate somewhat autonomously within institutional and social considerations that include the complex interactions between multiple stakeholders, unpredictable non-linear changes over time, and the multiple spatial and temporal scales of nested hierarchies (Parkes and Panelli 2001). This perspective considers that the norm-governed behaviour of (nested) stakeholders and the processes by which institutions are formed and reformed tend to be interest-driven and highly political (Holm 1995). It is important to contrast such perspectives as Luhmann’s with more negative views of the autopoiesis phenomenon where some (Mingers 1995, Ulrich and Probst 1984) observe that systems are not reflexive, but are blind or closed because they are self-referential only interpreting the world around them through their own frame of reference. One major problem of applying autopoiesis to society is that one cannot consider individuals as components of a social system if the latter is autopoietic.
“If human beings are taken as the components of social systems, then it is clear that they are not produced by such systems but by other physical, biological processes” (Mingers 1995: 124). There has been longer-term debate on the ontological and epistemological inconsistencies (Zolo 1990; Mingers 1990, 1995) introduced through considering social systems as autopoietic with claims that the original theory maintains consistency with idealism and epistemological realism at the same time (Kay 2001). However, while interesting, this is not the place for a close examination of these broader debates. My claim is that this is an esoteric debate (following Whitaker 1995) and for this research there is much value to be gained by attempting to structure observations and analysis around the aspects of the debate which resonate with me, namely an interplay between the Luhmann approach which considers enterprises as autopoietic systems and the Hejl (1980, 1981, 1984) approach which considers enterprises as emergent from interactivity. After all, if we support the progenitors of this theory, the fundamental epistemological tenet of autopoiesis is that: ‘Everything said is said by an observer’. (Maturana and Varela, 1980, p. xix).

Viewing NRM stakeholder networks as nested systems responds to critiques by Leeuwis (2001) and Connelly and Richardson (2004) who claim that effective consensus among some (that leads a specific set of actors to generate tangible progress) is frequently based on conflict and competition with others. Considering NRM networks as nested systems, however, each with their specific emergent properties and agendas operating in ‘wicked’ multi-stakeholder contested space, requires a yardstick to judge their value in influencing and indeed improving the wider system. Bossel (2001) argues that simple indicators are useful for assessing nested system, system relationships. One set determines subsystem viability and performance, and a second set is needed to assess the contribution of the subsystem to the viability and performance of the system as a whole. This duality of indicators can be repeated at every level of the system hierarchy.

The key properties of autopoietic nested systems of policy stakeholders (as argued by Kay 2001 and Hall 2005) are that:

- the organisation of these nested systems is discriminable from the wider organisational environment
- the components and boundaries (see Kay 2001) of these nested systems are determined by the members of the nested system.
- the nested systems are complex, comprised of many and varied physical, human, and economic components that in many cases are complex in their own rights.
- the nested systems are dynamically self-regulating.
• the nested systems intrinsically produce their own components, such as induction of new members, agreed processes and procedures.
• the self-produced components of the nested systems are necessary and sufficient to produce the nested system, such as doing things necessary to maintain their integrity as valuable and viable entities.
• the self-produced nested systems are self-sustaining over time, with life spans that outlive the participation of individual human members.
• the nested systems "learn" and adapt to changes in their physical, economic, and competitive environments (after Hall 2005)
• the nested (auto-poietic) system seeks self-preservation through its interactions (after Hall 1984 in Kay 2001)
• the conception of autopoiesis needs to be considered as a heuristic tool which is a representation of the observer(s) more than a true reflection of the behaviours within the nested system (after Kay 2001).

A further development is to assess nested multi-stakeholder systems as Communities of Practice (CoPs). Communities of practice combine three elements (Wenger 1998):

1. **Joint enterprise** – Members are bound together by their collectively developed understanding of what their community is about and they hold each other accountable to this. Competence is a measure of understanding the enterprise well enough to be able to contribute to it.
2. **Mutuality** – Members build their community through mutual engagement by interacting with one another, establishing norms and relationships that reflect these interactions. Competence is a measure of engagement with the community as a trusted partner.
3. **Shared repertoire** – Communities of practice have produced of communal resources including language, routines, sensibilities, artifacts, tools, stories, styles, etc. Competence is a measure of access to this repertoire and effective use of resources.

CoPs possess collegiality, reciprocity, expertise, contributions to the practice, and negotiate a learning agenda. A CoP does not have affiliation to an institution, organisation, assigned authority, or commitment to a predefined deliverable (after Wenger 2000:243).

Wenger’s argument is that organisations must determine how to participate in broader learning systems in which they are only one of many players, and as a consequence for sustained success, organisational members increasingly need to know how to deal with and negotiate divergent opinions and conflictual situations. A review of such attributes will assist assessment of the performance of nested systems in influencing organisational outcomes, including things such as extension policy.

### 6.6 Accepted methods and language of negotiation

Thus far in this research journey I have only briefly discussed elements of contemporary negotiation literature for dealing with conflict (e.g. Section 4.3.5), principally due to earlier recommendations made by senior DNR&M executive manager, Paul Mort. In discussions about negotiation practice for NRM in Queensland, Paul had some concerns about negotiation ‘theory’ and popular writings. Paul contended that, “Negotiation has been researched to death, and besides all the texts are from the [United] States. Sure they have good and logical principles within them, but what would be interesting is identifying how Queenslanders
negotiate their way out of NRM dilemmas and deal with regional issues?” (Mort pers. comm.)

In line with Mort’s recommendation, initial efforts were to conduct inquiry phases in negotiation episodes without being ‘tainted’ by non-Australian perspectives. Following three research episodes, however, I needed a much richer appreciation of the accepted language and methodology of negotiation to raise my own capacity and confidence for interacting with people with very different ‘negotiation approaches’. Therefore this section continues and deepens a discussion that was already started previously in Chapter 4. First, literature in the area of conflict in the longer-term institutional landscape was reviewed. Some basic similarities are evident. Negotiation language was quite similar, with much derived from Fisher and Ury (1981) and Fisher et al. (1981, 1991, 1999). Even though minor differences appear in how these principles and basic approaches are applied, there is limited value in a comparative review by different authors, because apart from some different emphases placed on tactics and tools, they are consistent in their orthodoxy. An exhaustive critical review on negotiation theory and praxis by these and different authors is beyond the scope of this study (See Section 4.3.5). Apart from the fact that a ‘negotiator’ is expected to read a considerable volume of literature, each of these authors provides varying slants on the fact that negotiations need to be planned and pre-thought and a range of tools and ways of thinking are available for moving toward negotiated outcomes. For example, Speigel et al. (1998), coming from a legal and academic perspective, provide a detailed and targeted, tool-box of approaches and techniques with a stronger emphasis on the legal aspects of negotiation and alternative dispute resolution. Dicker (2002) places more focus on business, business people and the workplace. Fritz et al. (1998) place great stock in the networking and interactive dimensions of negotiations, whereas Parker (2000) aims more for a facilitator’s guidelines and toolbox. Harvard University’s de Souza Briggs (2003) writes about practical considerations of packaging different interests in negotiations. Other authors describe levels of conflict and associated negotiations (see Deutsch (1973), Rex (1981), Pondy (1967)). For this study, however, a useful conceptual framework and tools for designing and dealing with complex negotiations is provided by Lewicki, Saunders and Minton (2001). Following are some key aspects relevant to this study.

Negotiations occur for one of two reasons:
1. To create something new that neither party could do on his or her own, or;
2. To resolve a problem or dispute between parties (Lewicki et al. 2001).

Negotiation is characterised by Lewicki et al. (2001) as a more formal interpersonal, or inter-group process that occurs when parties are trying to find a mutually acceptable solution to a complex conflict. Common characteristics of negotiations include:
1. Two or more parties;
2. Conflict of interest;
3. Negotiation offers a better deal (potentially) than acceptance of voluntary settlement offers;
4. Parties prefer to search for agreement rather than openly fight, capitulate, break contact or resort to higher authority (parties need each other – or are interdependent in reaching a solution);

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88 Paul Mort made these recommendations in 2002. He was General Manager assisting Resource Policy in DNR&M and has written a number of publications about NRM negotiation (as cited in this text). He also has a strong practical grounding in multi-stakeholder institutional settings.
5. There may not be an accepted system (rules/procedures) for resolving differences;
6. Both sides expect to give and take (see note below), and;
7. Intangibles as well as tangibles are involved in the interaction (Underlying psychological motivations, core beliefs and values influencing parties during the negotiation – e.g. need to look good, desire for more business, fear of precedent) (adapted from Lewicki 2001).

Importantly, Lewicki et al. (2001) claim that truly creative negotiations can also result in a solution that meets the objectives of both (or all) sides. Two matrices proposed by Lewicki et al. (2001) describe the range of approaches that may be taken in negotiation processes. 89

![Substantive Outcome Important?](image)

Contrasting the concerns respective parties have for the issue(s) at stake against concerns about relationships amongst opponents or adversaries proves to be a more effective point of entry to collectively considering the best route a negotiation can take rather than immediately considering the contest of wills, as depicted in Figure 6.4. The notions of ‘Fight’ within the Competition quadrant and ‘Flight’ within the Avoidance quadrant were suggested by senior DNR&M staff (Muller pers. comm. and Newberry pers. comm.). Both these staff members are experienced facilitators of participatory processes and with these additions, find this matrix particularly useful for describing the potential routes that interactive activities may take.

Figure 6.5 provides another means of describing the same negotiation logic, but with a comparative relationship between the concern each negotiator has for their own outcomes versus their concern about their opponent or adversary’s outcomes.

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89 These matrices have proven in this research to be a very effective means for describing useful points of entry into a negotiation and correspondingly a means for identifying an appropriate negotiation strategy. After using both matrices in describing negotiation to many DNR&M staff and stakeholders, both in workshops and individually, the first (Figure 6.4) draws more interest and understanding.
These five general approaches are:
1. **collaborative** (also problem-solving or integrative) – where parties actively pursue approaches to maximise joint outcomes from the conflict so that each party ‘wins’;
2. **competitive** (or distributive) – where parties pursue their own outcomes strongly with little concern for whether the other(s) obtain their desired outcomes. In this strategies parties maintain their own aspirations and try to persuade the others to yield;
3. **accommodating** – where actors show little interest or concern in whether they achieve their own outcomes, but more on whether the other parties do;
4. **avoidance** – where actors show little interest both in whether they, or their opposing parties achieve their outcomes, or;
5. **compromise** – where actors show a moderate interest in pursuing the achievement of their own outcome(s), and a moderate interest in whether the other parties achieve their outcome(s) (adapted from Lewicki et al. 2001).

Arguably, the collaborative-integrative approach described by Lewicki et al. (2001) is desirable for achieving sustainable outcomes from NRM negotiations (as per Lysak 2006).

**Strategy Tactics of Integrative Negotiation** – Overview of Integrative Negotiation Process

In distributive bargaining, the goals of the parties are initially at odds – or at least appear that way to some parties. In contrast, in integrative negotiation the goals of the parties are not mutually exclusive. If one side achieves its goals, the other is not necessarily precluded from achieving its goals. … The fundamental structure of an integrative negotiation is such that it allows both sides to achieve their objectives. Although the conflict may appear to be initially win-lose to the parties, discussion and mutual exploration will usually suggest win-win alternatives. Past experience, biased perceptions, and the truly distributive aspects of bargaining often make it remarkable that integrative negotiations occur at all. But they do, largely because negotiators work hard to overcome any inhibiting factors and assertively search for common ground (Lewicki et al. 2001:89).
Many negotiations may not need to have winners and losers. Instead, all parties can work toward \textsuperscript{90}‘win-win’ solutions, rather than being divided in win-lose encounters. Lewicki et al. (2001) maintain that if negotiators look for win-win solutions, they will usually find them. They compare collaborative-integrative with competitive-distributive interactions to put this in perspective. The processes regarded by Lewicki et al. (2001) to be central to the achievement of integrative agreements and outcomes are:

a. **Creating free flow of information** – those involved need to reveal true objectives and listen to others’ objectives. Willingness to share is not characteristic of distributive processes.

b. **Attempting to understand the other negotiator’s (party’s) real needs and objectives** – to satisfy another party’s needs, at first they must be understood. Awareness ≠ Understanding.

c. **Emphasising commonalities between parties and minimising differences** – often a new (reframed) collective goal may be required where commonalities are less apparent.

d. **Searching for solutions that meet goals and objectives of both sides** – being firm about primary interests and needs, but flexible about how they are met (from Lewicki et al. 2001).

**Key Steps for Integrative Negotiation:**

(i) **Identify and define the problem** – in a way that is mutually acceptable to each side. It is best to develop a simple problem statement in which the problem is a goal with identified obstacles in its attainment. It is also advisable to depersonalise the problem as well as separate the problem definition from the search for solutions (after Fisher and Ury 1981).

(ii) **Understand the problem fully** – through identifying interests and needs. There is almost always more than one type of interest in a dispute. Parties can have different types of interests at stake and they can often stem from deeply rooted human needs or values. There are numerous ways identify and describe interests. It is important to recognise that interests can change and that dealing with interests is not always easy. Investigating the constructivism-memetic dialectic here may be valuable for improving understanding of how the problem is interpreted and communicated by and amongst different parties.

(iii) **Generate alternative solutions** – by inventing options which range from: expanding the pie; logrolling (trade-off on one or more conflicts); using non-specific compensation, i.e. buying a gift or payoff incentive; cutting the costs for compliance i.e. redetermining a package that is ‘easier’ for all parties; finding a bridge solution i.e. redetermining a package that allows both (or all) to pursue their interests (after de Souza Briggs 2003).

(iv) **Evaluate and select alternatives** – through narrowing the range of solution options; agreeing to criteria in advance of evaluating options; evaluating solutions on the basis of quality and acceptability; being willing to justify personal preferences; being alert to the influence of intangibles in selecting options; using subgroups to evaluate complex options; taking time to cool off; exploring different ways to re-package; keeping decisions tentative and conditional until final proposal is complete, and; minimising formality and record keeping until final agreements are secured (adapted from Lewicki et al. 2001).

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\textsuperscript{90} Arguably, in many NRM conflicts and dilemmas it is very challenging to negotiate win-win outcomes for all
Building on pre-conditions for successful negotiations highlighted in 4.3.5, key factors that facilitate successful integrative negotiations include: some common objective or goal that all parties share; faith in one’s own problem solving ability – a belief that you can work together; a belief in the validity of one’s own position and in the other’s perspective; the motivation and commitment to work together; trust; clear and accurate information; and an understanding of the dynamics of integrated negotiations. Lewicki et al. (2001) present detailed principles and techniques for practicing distributive or competitive negotiations. Important are the approaches a negotiator, facilitator or stakeholder can use to prepare for the negotiation including identification of a BATNA – a Best Alternative to a Negotiated Agreement – as well as personal negotiating range. Ideally, distributive approaches to negotiation can be ‘fair’ if competing parties use deliberate approaches to reaching agreement. Arguably, each of the strategies shown above in Figure 6.4 “has its advantages and disadvantages, and is more or less appropriate given the type of conflict and situation in which the dispute occurs. Conflict theory and research have moved toward a contingency approach advocating that the strategy selected should be based on the objectives of the parties and the nature of their dispute” (Lewicki et al. 2001:18).

6.6.1 Towards interactive negotiation as a reflexive processes
The adaptive approach suggested by Lewicki et al. (2001:18) is fundamental to the very act of intervening in negotiation processes, be it through inquiry points of entry, facilitation support, forced intervention or some other form of strategic interaction. This leads to the proposition that perhaps the meta-process of deciding on the superior negotiation strategy with all parties is the more prudent point of entry for a facilitator, rather than they themselves endeavouring to plan the best strategy.

Leeuwis (2004) divides negotiations simplistically into two broad categories: integrative and distributive. He claims that sharing of problem definitions through (creative) social learning processes using integrative negotiation approaches is of greater interest for innovation and problem solving in interactive processes. Explicit understanding by stakeholders within an interactive process of these other possibilities and their implications will enable a more informed view of why collaborative (or integrative) approaches have a greater possibility of resulting in more sustainable outcomes for all parties concerned. Another alternative may be to provide the different parties with the opportunity to make considered choices as to which negotiation paths or approaches to use.

Following an integrative negotiation approach, one would consider that ‘strategy choice’ within an interactive negotiation process, complete with evolving memes and re-constructed interpretations and understandings, would itself be a negotiation process, whereby at different stages (or intervals) the parties may wish to, or need to, re-negotiate the very strategy they are employing. This builds on Leeuwis and van Meegeren (1999) who talk about agreement on process design as a continuous task.

Many authors do not see competitive or compromise approaches to be viable strategies for achieving effective and sustainable outcomes due to laziness, half-hearted attempts, or ill-informed yielding (Lewicki et al. 2001, Pruitt and Rubin 1986) with resultant outcomes being provisional at best (Aarts 1998) with little chance of progressing toward a satisfactory package that ‘all can live with’ (de Souza Briggs 2003). Leeuwis (2004), Lewicki et al. (2001) and others argue that the collaborative-integrative route to achieving negotiated outcomes will result in increased ownership of the outputs from the interaction, and thereby produce more sustainable outcomes. A counter argument is that this may not always be initially possible.
The role of a targeted intervention may be to invite discussion on the best strategy choice, advocate the benefits of a collaborative-integrative route, but then proceed with the group’s chosen strategy, while endeavouring ‘in-action’ to negotiate the interactive pathway back toward the collaborative-integrative route. The Triple-Loop-Negotiation model proactively focuses on engaging such levels of reflexivity within a negotiation process.

### 6.6.2 Triple-loop negotiation

Beginning with earlier work with farmers in Scotland (Leach 1997, Leach and Leeuwis 1997), where I used action science and double-loop learning concepts to investigate farmer approaches to planning and learning, I found that the notion of second-order (or triple-loop) learning to be very important for considering transformational thinking in the personal and institutional setting (following Argyris and Schön 1996). I found that intervening as an action researcher enabled rural actors to map out and ‘critically’ reflect upon their own approach to learning (a third loop). A direct consequence was that these farmers were able to consider from a meta-level their approach to interacting with others and (using Argyris’s terminology) internalising their own strategies for modifying their own and others’ governing variables.

A number of authors also consider this concept. Leeuwis (2000), building on Argyris and Schön (1996) and Wijnhoven (1995), sees that triple-loop-learning requires one to change the way they organise or think about the learning process itself. McWhinney (1992) asserts that triple-loop-learning occurs when an individual is using multiple realities to reframe their own and others’ experiences in alternative ways and that multiple realities (or higher-order praxis) will create a richer picture of a situation than if only the individual’s reality-frame is used. Alternately, Berman (1981) and Bateson (1972) suggest that second-loop-learning is learning about the context that someone learns within, whereas triple-loop-learning is about learning re the context of those contexts. Berman’s further claim is that learners are in the third loop when they are realising the arbitrary nature of their own paradigm. This is a promising concept when considering NRM negotiations.

Harman (1988), Bateson (1972) and Loverde (2005) suggest a fourth level of learning, taking the concept to a level of evolutionary change in society. Their claim is that society as a whole is changing its fundamental belief structure in shifting from a positivist metaphysical framework with realities based on the ‘measurable world’, to thinking frameworks that are more intuitive with increasing focus on consciousness, spirituality, social responsibility and ethics. While we wait for the fourth loop to crystallise, I believe the route to hastening its arrival, and of enabling more inclusive and collectively reflexive NRM negotiation processes to take shape, requires a critical focus on the third loop.

Based on the learning theories of Argyris and Schön (1996), where double and triple-loop learning is the basis for transformative processes of change, research findings suggest that the notion of negotiation may be considered in a similar way.

1. Single loop – negotiating a substantive issue
2. Double loop – considering the reasons, motives, assumptions and beliefs within negotiations
3. Triple loop – negotiating the negotiation approach and process

Research episodes demonstrated that to enable effective engagement of key stakeholders in a process of negotiating differences of interest, substantive issues or paradigmatic clashes, the shared (or collective) degree of deliberation, commitment and decision-making space is critical to success. There are different levels at which disputants appear able to commit
themselves and indeed provide the space needed for change (in belief, cognition or value) to resolve the issues at hand. To strengthen these levels of commitment in negotiations, it is not adequate to simply address and improve present negotiation routines (single loop) which disregard governing values entirely. In line with the thinking of Argyris and Schön (1996), moves to investigate and challenge assumptions and boundaries which underlie negotiation practices (double loop), or even change the way disputants organise or think about the negotiation process itself (triple loop) are needed to engage opponents more effectively in a negotiation (and learning) process.

6.7 Conclusions for further research

To refocus the line of inquiry in this research, a better understanding of negotiation theory provides a language for communicating with and enrolling conflicting NRM stakeholders into an interactive process where their individual and collective negotiation approaches can be explicitly considered. Further to this, investigations into decision-making, organisational change and adaptive management (with a focus on subsidiarity, autopoiesis and nested systems) help improve the conceptual framework in which the dialectic relationship between constructivism and memetics is located. As argued by Sterelny (2006), our adaptive decision making depends on the construction of epistemic tools (e.g. easily recalled narratives) which enhance the cognitive capacities of individual agents. My argument is that tools to aid inquiry into how institutional NRM stakeholders construct their understandings of the issues at hand and interpret and indeed replicate the memes exchanged in these encounters are prosthetics that enhance the reflexive capabilities of multi-stakeholder negotiation processes.

Additional research questions from this intermezzo include:
1. To what extent does the adaptive management framework, as a nested process within the different stages of the lazy-eight lifecycle model of organisational (and ecological) change, help to explain the institutional processes at work in multi-stakeholder NRM processes?
2. In what ways does the reflexive triple-loop-negotiation model support and enable autopoietic organisation through the design, facilitation and conduct of multi-stakeholder negotiation processes?
3. In what ways do adaptive management, the lazy-eight and triple-loop-thinking influence the constructivism-memetics dialectic in multi-stakeholder NRM negotiations?

While this discussion runs the risk of moving outside accepted views on extension practice and extension policy these questions place memetic-constructivist thinking in an organisational change context to assist when designing, organising and operationalising further research into institutional NRM negotiation activities. This will also inform processes to institutionalise extension for NRM as well as inform extension practice in conflictual NRM activities.
Chapter 7: Investigating organisational negotiation processes in two ‘NRM extension’ episodes

This chapter considers two research episodes coordinated in DNR&M between January 2003 and August 2004, namely the RWUE Scenario Planning Process, and Beyond New Extension. The reason they are presented together in this chapter is that both investigate organisational efforts to develop management support and an operational platform for external extension delivery by DNR&M. Also relevant was that I was instrumental in helping design the process to progress both issues toward a solution. This included attempts to aid understanding through my own employment of triple loop negotiation, adaptive management, organizational change and other concepts (e.g. chapter 3, 5) in my interactions with stakeholders from the beginning of each episode. Rather than confuse or bewilder with jargon and complexity associated with these concepts I chose to articulate them ‘in action’. Activities associated with these two episodes provide a valuable opportunity to examine triple-loop-negotiation in terms of organisational change, autopoietic organisation and constructivism-memetics dialectic. The major difference between these episodes is that RWUE efforts investigate the use of a scenario planning to negotiate an adaptive approach to re-negotiating the next steps and were in the wake of a previously successful program, whereas efforts to resurrect and progress New Extension followed a failed extension strategy two years prior.

Using the additional learnings and concepts from Chapter 6, the following sections outline contextual information for both episodes, autoethnographic accounts investigating the relative success and failure of introducing and explicitly designing multi-stakeholder negotiation approaches to resolving organisational issues with extension. Following these accounts are responses to the new research questions posed in Chapter 5. These episodes are important to the refocused line of inquiry because they both deal with longitudinal views of organisational change relating to extension and it is possible to analyse aspects such as adaptive management within multi-stakeholder processes, autopoiesis, and lazy eight cycles.

7.1 Investigating the RWUE meme

This episode was an investigation into the approaches taken to negotiating the future of RWUE (Rural Water Use Efficiency initiative), a well recognised ‘successful’ NRM extension program in Queensland (Coutts 2003). In May 2003, RWUE staff invited me to help organise and facilitate a process for re-negotiating the program’s future as its allocation of funding was drawing to a close. I was enthusiastic at the prospect of interacting with a group to identify and implement a methodology that they could use to deal with the multiple ideas, aspirations and agendas surrounding the RWUE program. My point of entry to advancing this was a telephone call from Matt Bignall, an ex-colleague who had been closely aligned with the New Extension process. Before telling the story, however, it is important to contextualise RWUE and the negotiation processes we conducted.

7.1.1 An industry driven NRM extension program

The RWUE initiative was developed as a partnership between rural industries and the government aiming to improve the water use efficiency (WUE) and management of available irrigation water thereby improving the competitiveness, profitability and environmental sustainability of Queensland’s rural industries. RWUE was funded by DNR&M for four years with $41 million being allocated to the program. These funds were allocated to the program across four areas:
• Adoption program (extension, development and research);
• Reducing water losses from storages on farm;
• Financial incentives to achieve best management practice, and;
• Reducing water losses in irrigation water supply and distribution systems.

$23 million of the total initiative funding was to be spent on industry adoption programs (extension, development and research) to improve WUE on farms. Assessments of WUE in Queensland indicated that about 60 percent of irrigation water being used by farms was for crop or pasture production with the balance being lost to runoff, drainage and evaporation. Losses to runoff and drainage lead to losses of fertiliser and pesticides from the farm and environmental damage (Barraclough 1999; 2000).

The goal of RWUE was to have improved (by July 2003) WUE across the nominated industries across the state, so that an equivalent of 180,000 ML more water per year would be available for irrigation purposes (Smith 2003).

Key features of the RWUE adoption programs included:
1. The industry programs managed by rural industry organisations (CANEGROWERS for sugarcane; Cotton Australia for cotton and grains; Queensland Dairyfarmers’ Organisation for dairy and lucerne, and Queensland Fruit & Vegetable Growers for horticulture).
2. Each organisation involves irrigators in the design and implementation of its adoption program.
3. Approved industry programs funded by the Queensland Government through DNR&M.

Participation by individual farmers in RWUE programs was voluntary and not restricted to irrigators supplied from regulated water sources. The adoption programs were supported by R&D activities to develop further information on improved irrigation water management techniques. Milestones and targets for megalitres to be saved and percentages of irrigators adopting Best Management Practices (BMP) were established by each industry with progress against these milestones being reviewed at set intervals.

The Adoption Initiative aimed to establish a process for continuous improvement in WUE to address irrigation losses on an ongoing basis. The WUE Initiative Adoption and the Financial Incentive Scheme programs were managed through the respective industries in partnership with DNR&M. The four main rural irrigation industries were: Cotton & Irrigated Grains; Sugar; Horticulture, and Dairy & Lucern.

A positive feature of the program was that the total amount of the improvement in WUE targets exceeded the Initiative’s key performance target of 180,000 ML (Coutts 2004). However, even though the targets set by the industries were achieved, there were still opportunities for further improvement, as nearly 500,000 ML was identified as overall losses from the irrigation system (Barraclough 1999).

The following autoethnographic dialogue is my recount of significant aspects of negotiations concerned with the determination of RWUE’s future. This account has been prepared using records from cumulative events and interactions in meetings, telephone, email, casual exchanges and written documents.
Autoethnography: Keeping RWUE flowing

Matt Bignall called me early in 2003 and asked: “Hey Greg, I remember when I used to work with you in Indooroopilly that you were pretty keen on RWUE as an extension model. Are you interested in contributing to some thinking about the next steps with the program, seeing as it is coming to a close in a few months time?” “Sure Matt”, I replied. “That would be great. Are a few people coming together on this?” “No, it’s just a couple of us in the DNR&M group at this stage starting to think about being proactive with the possibility of continuing the program. Apparently, we have a May 31 deadline at which we have to present the RWUE 3 model. Deborah, Kep and I have been thinking about an interactive process with stakeholders – you know, to use an inclusive process that lets the success of the program drive the planning”. We arranged to hold the first meeting with the RWUE group in head office.

My first meeting was with Matt and Deborah Bennett, and it seemed that they were the key drivers keen on progressing participatory activities to help plan RWUE’s future. Matt had obviously been thinking and suggested: “You know, I reckon that we need to build on the good relationships and outcomes of RWUE to move it to the next stage. We need a methodology that is progressing and building on these good aspects!” Deborah and I both agreed and we all then set about scoping a range of different methodologies we were familiar with. Deborah said: “This has been a very successful multi-player program, with industry, government and producers all working well together. The industry has been delivering the extension services through a range of avenues. We need all these players to be involved in deciding on the next steps. We need a good line of argument that is agreed upon by all external parties – to put into the Government’s lap. This needs to be pretty convincing, or DNR&M will carry out its longer term threat of dropping program funding completely. And that will be a disaster! Everybody is on side, fantastic outcomes have been achieved. Industry will be shaking their heads if DNR&M drops it now!”

At the time I felt that Deborah’s perspective on NRM extension seemed to mirror my own. While extension delivery for the RWUE Program had been purposely outsourced to industry, the funding was heavily supplemented by government and the issues with ongoing coordination and extension budgets threatened industry body extension services. So for the survival of NRM extension, at least in this part of DNR&M’s portfolio, the balance of private sector delivery and public sector delivery was fundamentally dependant on the continuity of State Government funding. Private NRM extension delivery for water use efficiency would arguably be greatly reduced without further strategic allocation of RWUE program funding.

Matt and I spoke of the strategic planning that we had both experienced through our past in DPI&F. Deborah said quite sarcastically: “Oh, come on guys – you don’t really think that a dry old planning exercise is going to grab people, do you?” Matt said: “But that is what we want isn’t it? – a plan?” But then he turned the concept around in his mind. Deborah and I could see the transformation. Matt then exclaimed: “We really need something that looks off into the future – something that we can use to paint a picture of a positive future and work back from to the present to see what needs to be done to get us there!” He and I looking at each other simultaneously uttered: “Scenario Planning!”

Matt had experienced the Scenario Planning methodology from a DPI&F exercise three years previously. Fortuitously, I had received training in DPI&F for facilitating Scenario Planning. Deborah was unsure: “Scenario Planning? Sounds good, but what is it?” I briefly explained: “Scenario planning can be used as a multi-stakeholder process for scoping out and comparing different projections of possible, or plausible, futures. Once a group develops about three or four possible future scenarios relating to the common issue they are concerned with, then they can think back to the present to consider the different conditions, human influences and management inputs that might either promote or prevent that future from eventuating.” Deborah then said: “This sounds quite exciting. What are the steps of the
process and how does it work?" “Well, the process can be facilitated”, I replied. “It is a recognised methodology and has been used by the likes of the Shell Company for predicting contingencies for events like the oil shortage in the early 90s. Because they pre-thought such a possibility, they already had a plan ready to go. They knew how to cope with the issue and were able to restructure their business operation to suit. Hey, why don’t I email you a brief list of steps for the Scenario Planning process, then we can get together and talk about it some more.” Matt said: “Great. Why don’t I go and see a key RWUE operational influencer in DNR&M, Tim Gant, and see if we can have a group meeting about this early next week!”

Figure 7.1 shows the outline that I sent to Matt and Deborah. Matt took this along with his interpretation of the Scenario Planning approach to Tim Gant, a key influencer of the group. Tim, while apprehensive, agreed, saying: “Maybe this would gain ownership by different stakeholders in planning the next steps.”

Later that week, Matt said that: “While Tim seems a little bit non-committal, and he does have his own ‘secret plan’ on the next phase of RWUE, he is also looking for a way of engaging with the key players and putting his plan on the table at the right time!” Tim called a group meeting two days later and invited me to also participate. I prepared a small presentation about the scenario planning methodology and how I could see it playing a key role in negotiating the future of RWUE in an innovative and integrative way. As I said to Matt over the phone when we were planning the meeting: “Hey, we could actually develop a recognised group of key stakeholders that can both negotiate within the group to get a clear position on RWUE, and then be ready to go to bat with the funders.” He agreed.

Preparing for the scenario planning workshop
At the first group meeting to plan the scenario planning process, while it took time to emerge, Tim began to display his competitive negotiation style. He said: “OK Greg, you’ve got the floor. Tell us your plan for this scenario stuff. What can we expect to get from it, and what is the timeframe for getting us there?” Buoyed by earlier projects, I replied: “Well Tim, I think it would be better if we take a brief look at an example of a scenario planning and some broad typical outcomes, but then work out ourselves what we really want from it, and what are the key steps needed to run an effective process that will provide good input into the negotiation of RWUE’s future.” Kep Dunn backed me up saying: “This needs to be thought through from a number of different angles, and this scenario planning process, from what I’ve seen of it, just might help us do this.”

Rather than prescribing a plan and methodology for the RWUE group, I proceeded to present and focus discussion on one diagram of an example scenario planning process. I invited the group by asking: “Let’s talk through the steps that were used in the DPI&F scenario planning exercise three years ago. This might give us an idea of the approach that we can use here. Is this OK?” The group agreed. The diagram we considered is shown in Figure 7.2.

Davida Rogers, Deborah and Matt were excited about the process and implored to Tim: “Come on Tim, let’s give it a go. If we involve the key stakeholders in developing some future scenarios and thinking through the ramifications of these on what we have to do now, it will enable some good buy-in of the re-modelled program.” Tim remained hesitant. “I’m not so sure, Deborah, but if the group wants to do it and we can involve the main players in deciding on the future direction, it has to be good.” So we decided we would meet again soon and begin scoping out a project plan as negotiated around the scenario-planning concept. I was content that key players had moved into the third negotiation loop having ‘negotiated how they were going to negotiate’ in determining RWUE’s future. Scenario Planning was an accepted tool to help facilitate adaptive management and organisational change, and provided a key opportunity to engage the knowledge of key industry stakeholders and build on their experience of the previously successful RWUE program.
## Scenario Planning Stages

### Establishing the Strategic Context - Purpose: to focus and guide the scenario planning exercise
1. Establish a scenario development team
2. Clarify purpose of SP exercise
3. Understand current environment relating to scenario purpose
4. Understand the sort of issues impacting critically on the decision to be made
5. Set time horizon
6. Identify context and level of analysis
7. Construct focussing question

### Data Needs and Data Collection - Purpose: the scenario process involves research – collecting information narrowly and broadly
1. Determine target group/area
2. Methods for collecting information – focus groups, interviews, literature, team feedback
3. Select questions
4. Interview target group
5. Distil Data
6. Data storage

### Data Synthesis - Purpose: to identify broad themes of interest in the data collected as the basis for further research – and areas of major uncertainty that the client is significantly concerned about
1. Distil responses onto post-its
2. Separate data into internal and external environments of the issue being studied
3. Cluster external data – natural clusters (STEEP: social, technical, ecological, economic, political)
4. Cluster internal data – internal data is used for strategy development testing & future vision
5. Present clustered data to scenario client group
6. Select themes for further research (data collection)

### Identifying the Driving Forces - Purpose: to understand the system and thereby identify driving forces/power
1. Undertake research in each theme/area – secondary existing data; speak with novelty people for ‘ahas’; interviews with new questions; literature research
2. Structure data – cluster post-its into logical groupings and name them
3. Identify driving forces (variables with high levels of explanatory power) – break down clusters into key variables in a ‘connected’ influence diagram
4. Categorise driving forces

### Determining Scenario Logic and Writing Scenarios - Purpose: to provide alternative plausible views of the future – to act as a vehicle to improve understanding of future and aid decision making
1. Select scenario logic – identify givens and identify the key critical uncertainties
2. Write scenarios
3. Test scenarios
4. Research new questions – issues that arise to enable better understanding and develop 2nd generation scenarios

### Working with Scenarios
1. Test existing strategies under various scenarios
2. Identify gaps
3. Incorporate scenarios into the scanning phase of strategic planning methodology to identify strengths and weaknesses

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Figure 7.1: Stages of Scenario Planning Methodology (Adapted from DPI&F 1999 & GBN 1999)
As the next meeting neared, Deborah called me on the phone. “Bloody Tim”, she exclaimed: “I have had enormous troubles the last couple of days talking him around to support this scenario planning exercise. He just wants to write his plan for the future and present it to the RWUE board and DNR&M management. He reckons that he has the best view of the program’s history and where it should be going. He is convinced that we are opening up the risk of spending money for no reason and ending up with egg on our faces – that we could very well shoot ourselves in the foot if we create a beast that is unfundable, or worse still, that we start a process that is going to take too long and waste everyone’s time. He is letting us continue the scenario planning idea, as long as we hasten the process, and get it finished by the end of May. He needs to have a plan ready for approval before the end of the financial year.” We agreed that this gave us good context and boundaries for the process. It also demonstrated to us that Tim was hedging his bets. While he showed some concern for his relationship with staff and some willingness to move toward a collaborative negotiation model, his ongoing lack of trust in integrative process and concern for achieving a good result before May 31 demonstrated his default was the competitive model.

Figure 7.2: Scenario Planning example for RWUE (based on GBN 1999 and DPI&F 1999)

A project plan was developed at the next RWUE group meeting. “Deborah has got some ideas down for developing a project plan”, said Matt. “Can we start with that?” The group agreed and began to build on her thoughts. She presented the following proposal as a process outline:

**Scenario planning process for RWUE futures**

1. Establish the scenario planning agenda
2. Data collection
3. Data synthesis & identifying themes
4. Continue data collection on identified themes
5. Data analysis and scenario logic
6. Writing scenarios
7. Testing, finalising and prioritising scenarios
8. Preparing and presenting the RWUE Strategic Plan

"If we use these steps, I think we can meet Tim’s deadline of 31st May. I am just not sure on the most effective way of collecting the information", Deborah pointed out. “Well, what if we have a big workshop in Brisbane where all key stakeholders are represented?” I suggested. Matt was supportive and Tarek, Davida, Kep and Tim warmed to the idea. Tim was surprisingly positive about the workshop, but cautioned: "We had better organise this workshop well, and maybe it’s better if we have a facilitator that is a detached from the process. We don’t want to have DNR&M staff appearing to drive the whole thing. We really need to involve industry more, but we also have to be careful that we don’t lose the logic of the past program."

“One thing though that I am not clear on, Greg, is the value in these scenarios. How are they going to help with planning the next phases of extension, incentive packages, physical works and whatever? Won’t we just get lost in the process?”, Tim asked me. Matt jumped in and replied on my behalf, saying: “No, Tim, the logic is as much about involving stakeholders in learning and thinking about the program, as much as it is about coming out at the end with a plan.” Then I added: “Sure, Matt, and also the advantage of looking into the future is that it is much easier to separate our minds from the issues of today and think in a more hypothetical manner about future scenarios, and that will allow us to more freely consider the important aspects. Sure, we all have a good knowledge of the successes of the earlier phases of this collaborative program, and that will help guide us in constructing and assessing the validity of different future scenarios. Putting the pieces together by working back from a future ideal or picture is easier than trying to deconstruct a complex issue that you are currently immersed within." Tim responded quite negatively, and his body language was strong. "I think you are getting too caught up in a fancy process that runs the risk of creating more trouble than it is worth. Sure, it is good for stakeholders to come together, but we really need something concrete and useable at the end of the day!"

Deborah glanced my way and I could see she was unsettled. She had spoken to me just before the meeting about Tim being closed and wanting to defend his long-standing power position and role in the program. I recalled her earlier words: “It is not that Tim wants to control RWUE, but more that he is keen on preventing or minimising the risk of unwanted complications, or unnecessary complexities in an otherwise effective program.” I made a mental note to reflect on this privately with her after the meeting.

This point in the exercise was very important for thinking collectively at some length about the role of scenario planning as a tool for negotiating a plan for RWUE’s future. We explored questions of what we individually and collectively wanted from the process, and what may be the best steps, complete with roles and actions to perform, to actually achieve these aims. While this process was an informal and record free discussion, it proved very important for cementing the confidence of the group in the scenario planning process and in reflexively adjusting the process itself to better meet the needs of the DNR&M staff concerned with the RWUE program. I was becoming increasingly conscious, however, that for a multi-party program, the DNR&M contingent seemed to be running the agenda. Deborah assured me that the key industry players were supportive of the process, however, I was somewhat concerned about their absence from such critical scoping discussions.
Everyone agreed that we needed to consider how the workshop could fit into the scenario planning process, so we then set about thinking through the steps that Deborah had proposed and inserting a workshop to assist some of the data collection and processing needs. At this point, Tim stepped out of the meeting to attend other business. He was most conspicuous by his absence. Had Tim continued to participate in this session, he may have been more supportive of the scenario planning exercise. As we talked, a picture began to emerge as to how the day may proceed and some conceivable outcomes. Discussions were brought to a head, however, when Deborah made the conclusion: “You know, we can’t really go much farther without getting a facilitator involved in the planning. And we definitely need one to stay on side with Tim. How about we stop here and we each think of a suitable facilitator to drive this process.” I responded with: “Yes, but before we go, we can get together some names of people that you believe should be participating in this workshop.” “Sure”, said Matt. “And we really need to make sure that we balance the mix of interested and non-interested parties, and also of opponents. Hey, that’s easy – let’s do it!”

As a group we considered the preparatory work we could organise prior to the workshop. Davida suggested: “I am sure that we could do some research now on the first key action of identifying the driving forces underpinning RWUE. Why don’t we do a brainstorm to see what driving forces we could investigate?” Matt took the floor and the RWUE group proposed the following action plan.

All agreed that the information gathering process should not to be arduous. “Brief dot-points will best illustrate the diverse thinking on water and its use, both internally and externally to DNR&M, and will help set the wider context for RWUE”, said Davida. “Current hardcopy information is probably the best source for broader corporate context, things like access documents, websites, or the minds of experienced people to get this info. The aim is to paint the corporate context and environment in which RWUE is positioned”, she clarified.

The action plan below was followed enthusiastically and the group reconvened one week later to collect and exchange information they had collected. There was considerable discussion about the impact that these forces might have on RWUE’s future. The group was becoming increasingly involved in thinking about the trajectory of the RWUE program.

Enrolling a facilitator
I had fully expected to be a facilitator for the RWUE Scenario Planning Workshop, however, Matt and Deborah thought that a third-party would garner more trust from industry stakeholders than a DNR&M employee. I spoke to Jade Eastly, a colleague at Indooroopilly about my misgivings. “Yeah, Jade, I’m pretty disappointed that a less-involved external party could potentially upset the work that I have been doing. I have been getting the RWUE group to a point where they are openly discussing and considering the best steps for moving forward. If some external consultant comes in with a fixed agenda, it could potentially upset the collective negotiation scope of the group. And I just can’t think of a suitable external facilitator that is well-versed in the scenario planning approach.” I conveyed the same sentiments to Deborah. She was surprisingly unruffled. “I know just who we need, Jo Nelder.” My spirits were buoyed by her optimism, but I was yet to be convinced that in the short space of time before the workshop we could adequately enrol Jo in the contextual issues and opportunities surrounding RWUE. Tim was extremely supportive of Deborah’s suggestion and Jo was promptly invited to facilitate the workshop. We met her the next day.

Jo is a consultant within organisational change circles and assured us when she arrived: “Don’t worry, I have had experience with Scenario Planning before. I just need to get my head around the key aspects you are seeking and your conception of the methodology.” We spoke with her mostly about the context and objectives of the previous RWUE program and the successes it had been recognised for and responded to her questions. I was concerned, however, that we seemed to be paying little heed to the considerable work we had done
already. Again Jo assured us: “I will read the information that the group has collected and then I can design a process to progress the scenario planning process.” “Can we talk through the design process, Jo”, I asked. She suggested: “How about I develop a process plan and run it by you all just to check that we are on the same wavelength?” Everyone (except for me) agreed that this was a good idea.

**Action plan: Identifying key forces influencing RWUE from current information**

<table>
<thead>
<tr>
<th>Source</th>
<th>Who</th>
</tr>
</thead>
<tbody>
<tr>
<td>Current thoughts and happenings – agreements uncommitted to paper</td>
<td>Tim + All</td>
</tr>
<tr>
<td>Philosophy of interstate programs</td>
<td>Tarek</td>
</tr>
<tr>
<td>Water Trading</td>
<td>Tarek</td>
</tr>
<tr>
<td>SUNWATER</td>
<td>Tarek</td>
</tr>
<tr>
<td>Federal Government – those departments involved with water</td>
<td>Davida</td>
</tr>
<tr>
<td>Success of regulatory trading of water</td>
<td>Kep</td>
</tr>
<tr>
<td>Trends</td>
<td>Davida &amp; Kep</td>
</tr>
<tr>
<td>- ABS – water/irrigation</td>
<td></td>
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<tr>
<td>- World wide trends</td>
<td></td>
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<tr>
<td>- Predictions in drought</td>
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<td>- Limiting of water through WAMP process</td>
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<tr>
<td>- Data from other States on water trading, etc.</td>
<td></td>
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<tr>
<td>Sustainable Industries Environmental Protection Agency</td>
<td>Matt &amp; Kep</td>
</tr>
<tr>
<td>Corporate Plan</td>
<td>Deborah &amp; Davida</td>
</tr>
<tr>
<td>Existing Plans – what plans are current for RWUE??</td>
<td>Tim</td>
</tr>
<tr>
<td>Kate Del Vegan &amp; Ed Roberts (contact only if websites don’t give much)</td>
<td></td>
</tr>
<tr>
<td>WAMPS – including Environmental Flows Information</td>
<td>Tarek</td>
</tr>
<tr>
<td>World programs – i.e. Ontario</td>
<td>Matt</td>
</tr>
<tr>
<td>Best practices from other places in dealing with water scarcity</td>
<td>Tim &amp; Kep</td>
</tr>
<tr>
<td>NAP – see Janelle Bridler</td>
<td>Tim</td>
</tr>
<tr>
<td>- Identify objectives relating to RWUE</td>
<td>Davida</td>
</tr>
<tr>
<td>- Map regional boundaries</td>
<td></td>
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<tr>
<td>- Funding arrangements</td>
<td></td>
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<tr>
<td>NHT – Guidelines for funding</td>
<td>Davida</td>
</tr>
<tr>
<td>Strategic Directions (DNR&amp;M) view of RWUE</td>
<td>Tim</td>
</tr>
<tr>
<td>Land Management &amp; Use view of RWUE</td>
<td>Matt</td>
</tr>
<tr>
<td>Catchment &amp; Regional Planning view of RWUE</td>
<td>Tim</td>
</tr>
<tr>
<td>Political – Minister &amp; Premier (reef protection program, etc.)</td>
<td>Tim</td>
</tr>
</tbody>
</table>

Table 7.1: Key Forces Influencing RWUE Futures – Existing Information

Two days later Jo called us back together and presented her ideas on the scenario-planning workshop. Fortunately, Jo had included large participatory sections within the agenda, particularly to allow the RWUE group at DNR&M to contribute the work they had already undertaken. She was, however, very sketchy about how the group was to transition between a potentially large range of critical uncertainties, and how to cluster these into priorities to identify the most critical two issues concerning RWUE. When I asked her: “How will you choose these two axes?”, she seemed somewhat vague, although with continued assurances that: “It will be OK. If we take an appreciative approach based on the things that work, the axes will be obvious”.

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The RWUE Scenario Planning Workshop

Over 40 stakeholders participated in the workshop at Brisbane Forest Park, a wonderful parkland setting away from the bustle of the city. In general, the day ran smoothly with considerable enthusiasm and input from a number of key stakeholders. The morning sessions generated even greater lists of critical uncertainties than I had expected. I queried Jo at lunch. “Wow Jo, we really have a lot of stuff now. How can we draw some logic from this and identify two key axes?” My alarm was considerable when she indicated. “Well, I am not quite sure.” However, despite my angst I thought it best not to openly doubt her capacity to handle this dilemma, but trust her professional judgement.

After lunch, while it was quite conspicuous to many that Jo was unprepared with how to handle this volume of material in a participatory manner, she continued assertively. She identified the most critical issues, using her observations of participant interest as well as her own perspective. One example of the nervousness in the audience was highlighted to me when Paul Mort leaned over and whispered his surprise at her approach saying: “Where did she come from!?” Notwithstanding this, the workshop proceeded smoothly. Jo confidently announced: “So, after this process it is evident that the two axes are the leadership and the partnership aspects of RWUE.” Jo drew the axes on the whiteboard (Figure 7.3). “Therefore, the four scenarios to be developed from this could be identified as the privatised model, the natural capital model, the regulatory model, and the partnership model. Now all we need is a committed team to draw from today’s outputs and then think through and write them up! I call for volunteers.”

It was surprising the ease with which representatives from the Queensland Farmers Federation, the Irrigators groups, Agforce, the Queensland Fruit & Vegetables Growers and Queensland Cotton offered to help once Jo had done this. She passed the workshop over to me at this point to close proceedings and plan the next steps.

Figure 7.3: RWUE Scenario Planning Axes with nominated costs to Government of each scenario

**Writing up the scenarios**

“Looks like it is my role to be the facilitator of this scenario development process”, I offered in the first meeting of the Scenario Writing Group. “Yes, that would be great. We need to streamline this process if we are going to meet the May 31st deadline”, said Ivan Jones (from QFF). Ivan, Baden, Mariel, Ted and Des were the industry representatives who persisted with the scenario development process through to its completion. Ivan indicated his support...
saying: “This is our chance to contribute to the RWUE remodelling process, and we certainly
have to think through these dimensions. I don’t know how Jo arrived at the answer, but I
certainly believe she has identified the most important challenges. We each need to take one
of these four scenarios and write it up, but I think that it would be good if we could meet
frequently and interact with you DNR&M folk as we do it.” “Just a minute, Ivan”, I said. “I
certainly don’t want to dampen your enthusiasm, but I think we need to process some of the
outputs from the workshop up front before we jump straight into writing”. Kep then suggested
that we draw up a timeline. “Maybe it is better if we have something to look at. That will
certainly help me to better appreciate how scenario planning might fit into our work loads,
and how it is the best way we can use our energies for the continuation of RWUE”.

The agreed timeline is shown in Figure 7.4. The group of four industry stakeholders, four
DNR&M staff and myself then planned to meet as frequently as possible until we had
completed the task. Deborah promised: “I will do my best to keep Tim in the loop as we go.
He really needs to be kept up to date or we’ll lose him.”

The more the group analysed the outcomes of the workshop, discussed the differences
between each plausible future, and progressed the writing of these in a scenario story, the
clearer the group convergence around desirable options became. Ted was in charge of the
Natural Capital Model and during discussions in the fourth meeting, he exclaimed: “This is
really interesting. While there are some positive aspects of each scenario, we keep coming
back to the Nirvana partnership model as the more effective win-win solution. Second would
be the natural capital model, and then it’s a toss-up between being regulated and going with
the free market!” The rest of the group concurred. I was very happy with the group’s support
for the Nirvana model as I saw that this would be a useful result for negotiation leverage in
my own personal push for institutionalising extension in DNR&M.

**Impact of the written scenarios**

“We really need to have a meeting with Tim and maybe some other managers to fill them in.
The time for deciding on RWUE’s model for the future is pretty close”, Deborah stated
adamantly as we neared completion of the four scenarios. A meeting was held with Tim at
the end of the week where he told everyone: “Deborah has been keeping me informed of
progress on these scenarios, and some really good stuff has been coming out. However, I
have been developing my own scenario right through this process, just in case, and it looks
remarkably like your Nirvana Partnership Model – with a few less dollars of course. Many of
the points in each of the scenarios have fortified the argument for my Water for Life model.”

Most in the room were aghast. “You mean you have had your own plan all along, Tim?”,
asked Mariel. “Well”, said Tim smiling ruefully: “I knew you folk were going to come up with
something, but I wasn’t confident what it would be. In any case, doing this exercise has been
invaluable for scoping the different possibilities. At least now we have a rigorous model to put
before the Board and the Minister!”
8 April  Multi-Stakeholder workshop to identify critical uncertainties, contextual issues and plausible scenarios to consider

16 April  Process outstanding information from workshop (and prior) into Driving Forces, Givens, Uncertainties and Critical Uncertainties

17 April  Group Driving Forces & Givens together into a Predetermined Forces List
          Ensure all uncertainties are relocated into the Uncertainties list
          Email these two lists to the broader group seeking their input prior to prioritising these lists

22 April  RWUE SPSG take this information and place it into a table complete with a scoring system. This can be sent out to the broader group for scoring. Need to discuss: what is missing?, what further research is needed?, who will get it?

29 April  RWUE SPSG process the scores to decide:
          a. Are the axes from the 8° OK?
          b. How do the 8° scenarios change?
          c. What is included in each scenario?
          d. What gaps still exist?
          e. Who will get information to fill these?
          Decide on groups & process for writing scenarios

29 April+ Begin writing scenarios
          Each scenario is a story. Each story will have the same pre-determined forces but will differ on the basis of the key future forces we are not sure about (critical uncertainties)

6 May    Discuss & compare Draft Scenarios

13 May   Begin comparing draft scenarios with the existing RWUE operational plans (Ian Bell’s + group’s)

20 May   Present draft scenarios to wider RWUE stakeholder meeting
          Draw from each scenario to add value to RWUE operational plans

31 May   Finished RWUE future plan

THE FUTURE

Scenario Planning Steering Group + Input from Broad Stakeholder Group

Wide consultation & feedback

Figure 7.4: RWUE Scenario Planning timeline developed by the group
Epilogue: Reflecting on the RWUE negotiation process one year later

“Hi Deborah, thanks for agreeing to this discussion. It’s been over a year now since the RWUE program was successfully negotiated and refunded. Do you have any thoughts or comments on the overall effectiveness or contributions of the scenario planning exercise to this successful negotiation outcome?”

“Yeah Greg, I’ve got lots of reflections. Firstly, the scenario planning activity gave everyone a chance to have a say. The ownership of the end products was pretty strong. Another key thing was that we were all glad that we convinced Tim to let us run with the Strategic Planning process. It was certainly a good idea, and Matt and I did a lot of work behind the scenes to pull that off, believe me! It really became apparent that we needed something different when, before contact with you and Scenario Planning, the first planning exercise we had to plan for the future of RWUE had nothing new. We knew we weren’t going to be able to negotiate anything with that. So we thought we’d ask a third-party type facilitator for ideas. That’s why we called you.”

Deborah continued: “You know, another thing that stood out for me was something personal. I challenged Tim that we needed to do something different and that scenario planning would get us there. Tim said back to me once, that: If you can pull this off, Deborah, you’ve got a lot of guts!” She paused: “Then I thought: Right, now there’s a challenge! What we needed was a means to work through the differences and issues that had been bubbling away for some time, but in a positive way, that would lead to a new form of consensus. And we certainly needed a process that targeted the fact that each of the key parties was quite dependent on each other – even down to the Ministerial advisors with a direct interest in water!”

“But what about the workshop, and what about Jo?”, I asked. Deborah said: “Did you know that Jo, that poor woman, was bombarded by Tim with his own confounding agenda. No wonder she seemed a bit lost a couple of times. Also, her lack of experience with Scenario Planning combined with 50 participants made it pretty tough for her. What we really needed was a much better session to identify with her what the decision-making processes should have been.”

“And the outcomes from the day?”, I asked. “Yeah! Overall it was a good day – a bit arduous and long-winded. But you know, all the information from that workshop has actually been combined into the RWUE2 program! The scenarios we developed gave a very solid base from which to work on”. She paused and then continued: “But I know that I’m going to shock you when I tell you that, overall, the scenario planning exercise was really not about supporting the negotiation process for RWUE2, because senior management had no intention whatsoever of continuing the program. Another agenda was occurring at the time with a restructure of the Water Management and Use business group. Tim was ready for retirement, so when he resigned, they were not going to refill his position and end the program quietly. That all changed, though, when the irrigators got wind of this and came down to see the Minister. Because some of the original allocation was unspent due to budgetary constraints, the Minister made the decision on the 30th June 2003 that RWUE2 would be able to continue using these remaining funds. And besides, the political mileage was worth it for the Government. While there was a tension within DNR&M management, he decided to continue RWUE2!”. Deborah further reminisced: “But funnily enough, the model was all ready to go from the scenario planning exercise, so RWUE2 was up and running again within days!”

Then I relayed my surprise with these events saying, “Wow, and I thought we had orchestrated an inclusive and well grounded negotiation process and we were the main show! But there was another conversation going on outside the recognised process!” I spoke with her about the literature I was reviewing regarding framing, uncertainty, creativity and social learning. She responded: “It’s interesting. All the while we in RWUE were intent on
delivering NRM outcomes through the RWUE approach by trying to get Government and industry to deliver together. Many managers in WM&U were able to see the benefits of this different way of doing business and make the shift. One manager, though, who shall remain nameless, couldn’t reframe the relationship and thought that RWUE was like the tail wagging the dog. And one General Manager – well, he just wanted to get rid of one group, and RWUE was in the firing line.” In closing, she said: “While at times the work may have seemed a bit superficial and not well connected with the power-players, Scenario Planning in this situation was very good, allowed lots of creativity in discussions and in looking at the issues, and opened thinking to suggest alternatives. Writing the scenarios gave much space for lateral thinking, we were able to be challenged by some of the perspectives from the workshop – we were able to actually capitalise on some quite outlandish statements. Ironically, the Ministerial position on RWUE’s continuation was supportive and therefore the ‘already developed’ scenarios were immediately available to be employed.” I agreed with Deborah’s assessment of Scenario Planning, but thought that I needed to do further investigation into ensuring the key players are engaged in negotiations. Interactions in this episode are further analysed in Section 7.3.

7.2 Beyond ‘New Extension’: Further investigating the extension meme in DNR&M

As introduced in Chapters 3 and 4, while considerable resources and efforts were committed to the development of the New Extension Framework, it was not supported by DNR&M executive management, and consequently not funded for implementation. While this seemed to be the formal position of the organisation, a number of stakeholders, both internal and external to DNR&M, were quite disturbed by this. My own attempt to reintroduce extension through the compliance agenda (as introduced in Chapter 5) was only one strategy among many others that stakeholders were using to attempt to influence the role of various non-coercive policy instruments.

In the following sections, four separate phases of the ongoing effort in the quest for repositioning extension in the increasingly regulatory NRM environment are presented.

7.2.1 Autoethnography: Losing the battle

In the following dialogue, I retrace the key turning-points in my journey in attempting to influence the institutionalisation of extension in DNR&M following the non-endorsement of New Extension and subsequent to the DNR&M Managers Compliance Workshop presented in Chapter 5.

June 2001 to March 2003: ESWG folds but I persist with extension

In the absence of executive management support and official sign-off of the New Extension Framework, members from the ESWG agreed to drop the possibility of implementation through quiet acquiescence rather than a collective resolution. As Bob Bray said to me on the phone: “We need to let it rest now – any mention of the term ‘extension’ seems to raise elements of defensiveness and confusion. Let’s just drop it for now and move on. Maybe we have had the impact we needed in some ways. We are certainly not going to get anywhere with it now – people have moved on.” Mary was of the same view, saying: “Well, we have put our hearts and souls into this one, but I have been finding that the whole New Extension process has been dragging me down and is interfering with my sleep. It’s just not worth it, and besides I have a lot of other work to get on with!”

This did not fit well with me at all. The worth or value of extension for supporting effective NRM, as I understood it, was beyond question. How could decision-makers not see that well-
supported extension services (as I had experienced through my history as an extension officer in western Queensland and through further study in an MSc at Wageningen), were an extremely valuable component of NRM change processes? My perception and enthusiasm for extension had grown to a point where I firmly believed in its value as a service delivery model or policy instrument to support and indeed enable change. My challenge had become helping others in DNR&M to ‘see’ or interpret extension in a similar light. It was this enthusiasm that drove me to further investigate and interact with the organisational aspects of change instruments, all the while endeavouring to find a point-of-entry through which to (re)introduce extension. The lull after the non-endorsement of extension had provided the chance for interaction with others and to reposition the approach to negotiating this with the key decision-makers in DNR&M. The Compliance Workshop in March 2003 (Chapter 5), which was largely the result of trying to work ‘with them, rather than against them’, seemed to have provided the imprimatur to progress this negotiation process. Everything seemed to be on track for gaining improved support for extension in DNR&M, or so I thought.

Getting to the IRM Executive

At the March 2003 Compliance Workshop, it had been recommended that I get together a team to advance this review of New Extension. I contacted a number of people on the list of business groups suggested. Doug Rove was one of the people on that list from the Communications Section. Over the phone early in April I asked him: “Doug, I am following up on the recommendation from the workshop to re-visit the extension strategy with a group and re-focus direction on compliance. Your name was on the list of people to be involved. I am just wondering what your thoughts are about this and whether you are able to be involved?”

“Yeah, I remember that – sounds like a good idea. Is there any money set aside for working on this?”, he asked. “No, not specifically”, I replied. “Pity, because I’m very interested, but I’ve got a lot on my plate and unless there are some resources attached, I will find it pretty difficult to engage with an extension review.” I saw his point. “What should we do then to secure the necessary dollars?” I asked. “Not sure – maybe if you call some of the others on the list, maybe we can get our heads together and prepare a proposal”, he offered. I could see that it was going to be a challenge. Notwithstanding this, however, I rang a few of the other names, but found similar responses. “It isn’t part of current business, so unless there is financial and management support to go along with the recommendation, it is not possible to deliver on it.”

It had taken some time to come to the conclusion that somehow a higher mandate and budget was required. So, I went back to the source, Tom Dreschler, the General Manager of Catchment and Resource Planning. Tom had been an ardent supporter of extension at the 2003 Managers Compliance Workshop where he had actually recommended: “We need to re-engage with the extension strategy outcomes shelved a couple of years ago. Extension never really had anything to hang off at that time, but now it has a role for compliance, and also for things like the Reef Plan.”

“Tom”, I asked in a meeting in his office: “that recommendation you made in the Compliance Workshop has been hard to get off the ground. No-one seems able to commit to doing something about extension unless there is a budget and management support to go with it. What do you think we should do?” Tom thought for a time, then suggested: “Well, I guess we could make some headway if we get it through Sam Plenty91 and on to the IRM Exec92 agenda. That way, if we can get support for it as an area that needs to be progressed, and set up some kind of project to progress it – just leave it to me. I will chat with Sam and get it onto the agenda of the IRM Exec meetings. Then you can come in, give a presentation and we will get it moving.” Then I added: “Yes, and in the meantime, I can interview Karl Withers

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91 Deputy Director General
92 Integrated Resource Management Executive Meeting – Managers below Sam Plenty meet to organise directions and programs for a large section of the Department
and Bill Houseman to get their angle on where extension should be sitting to add weight to the proposal for the IRM Exec." We were quite happy with this plan.

Over the next two weeks, I met with Karl and Bill to seek their perspectives. Tom called back two weeks after this saying: "Sorry, I have taken so long to get back to you on this. I have been busy with other things. Spoke with Sam and he thinks that its a good idea to get 'extension' on the agenda."

The IRM Exec meeting I had been scheduled for was on the 18th of August 2003. "Sure does take a long time to keep these things moving", I reflected to myself as I left the elevator on the Chief Executive level of Mineral House. "Hi Sam", I said as I was ushered into the IRM Exec meeting. "Hi Greg, so we are together talking about extension again. I'm glad to see it is still on the agenda. Later this week we are meeting to do some strategic planning with the EMG [Executive Management Group] and I am going to ask them whether we are taking the right direction with extension. I’m interested to hear what you’ve got to say on this."

Then I proceeded to give a PowerPoint presentation which included a diagram of the extension system in which DNR&M was a component (Figure 7.5). There was general agreement at the meeting that DNR&M did have a role in extension within such a system.

![Diagram of the NRM system extension](image)

**Figure 7.5:** A model of the NRM system extension in which extension is an integral component (Leach 2003b)

I then presented another slide (Figure 7.6) saying: "New Extension found that NRM extension is quite institutional and involves multiple levels within DNR&M the organisation as well as a range of external stakeholders – which is different from extension in years gone by. Therefore, for extension to work in DNR&M, we need an inclusive process of development. Also, we need to negotiate meaning and understanding with the key stakeholders to ensure that extension is meeting their needs."
Following this, I handed out a draft project proposal for consideration. I asked the participants: “Please take a look at the second page. There are a whole lot of points near the top that came from the interviews I had with senior staff including Karl Withers and Bill Houseman about extension. These points summarise their perspective on its role”. Then I read through each of these points in turn.

**Applying Extension to DNR&M Business in 2003 and Beyond**

Karl Withers (DDG NRS), Bill Houseman (ED Regional Services) and Tom Dreschler (GM Catchment & Regional Planning) see that the Extension Strategy in DNR&M needs to:

- develop clear examples of how extension applies to particular departmental business
- target the benefits of dealing with NRM issues now rather than later
- be an effective tool that conveys hard facts and views thereby enabling understanding and practice change
- facilitate voluntary compliance in line with the purposes of legislation
- focus science outcomes related to legislation as a means to enabling ‘voluntary’ change
- be canvassed as a proactive process that works with existing structures (groups using group processes)
- link with current issues like the Leasehold Strategy (Resource Plans, Land & Water Management Plans), Reef Plan and other key legislation
- target processes that staff are familiar with to do core ‘high-priority’ business
- help transition some staff on low-priority business onto higher-priorities
- be supported by a program of awareness building, training and skills development

They also indicated that the extension review needs to identify ‘extension’ resources in DNR&M.
Then I asked the group: “Please consider this proposal for advancing extension in DNR&M and let me know what needs to be changed or further considered. This proposal has been generated from the Compliance Workshop we had in March and the interviews and contacts I had with senior managers since then. Generally there is support that something needs to be done regarding extension.”

Sam looked around the room at the IRM managers. “What do people think about this?”, he asked. Ged Pless said: “I think that it looks good and is something that needs to be done.” Tim Wensing was not so sure: “I’m not convinced that doing any work on this is going to help things like vegetation management – they already have communication officers on deck, and that is all they really need. What is the benefit of having an extension strategy as well?” Tim responded and said: “Yeah, you may have a point there – I’m not sold on the idea of only having communication people in compliance without some higher order learning, education and awareness building activities – and there are also things like the Rural Leasehold Land Strategy and the Reef Plan that need to be supported by extension services.” Then Sam turned to me and said: “Greg, I think you just run with it. The Service Delivery Board are your steering group – and besides, they coordinate regional processes of service delivery. So get a project proposal together, go and present to them, get a team of regional and head office staff together, and put it into action.”

Proposal for NR&M Extension Planning
1. Present to IRM Exec and Regional Services Board for input and endorsement
2. Nominate members for steering group and working group in NR&M
3. Progress Extension Planning process for 6 months - negotiate extension services in NR&M for compliance, IRM and Resource Services - target elements of extension system – Regional Arrangements, DPI, EPA, APEN, other States, International
4. Report to IRM Exec and Regional Services Board

Figure 7.8: A proposal for extension development in DNR&M (Leach 2003)

Getting to the Service Delivery Board
After the IRM Exec meeting, I spoke with Tom Dreschler about getting onto the Service Delivery Board. He said: “Probably best to go and speak with Housy [Bill Houseman], he convenes the Board in his current acting role.” “Great” I thought: “I worked with Bill on the Compliance Workshop – he is sure to give me a good hearing.”

When I met with Bill, he seemed a little uncertain about the IRM Exec’s right to request the Service Delivery Board to steer an extension strategy project. He told me: “Yeah, this is something that needs to be discussed – but I am not sure what they will say. I will let you know when you are on the agenda.” So I began preparing a well considered project proposal and Powerpoint presentation for the meeting. I consulted with a number of people including Pete Smythe and Kerry Sams to aid with linking extension with current policy agendas.

93 Pete was a Rural Partnerships Officer and a member of the ESWG
On the 18th November 2003, I attended the Service Delivery Board. When I arrived outside the room, I could see through the glass pane that the Regional Service Directors were engaged in a very serious discussion. I waited until my allotted time and tapped lightly on the door. Bill held the door ajar and said through the opening: “Sorry Greg, can you just give us some time – I’ll call you in when we’re ready.” So I sat outside the door and waited. Some 15 minutes later, Bill put his head around the door and asked me in. Karl Withers\(^95\) sat directly opposite where I was positioned, and seemed quite impatient when he asked: “So what is this item on the agenda?” Bill briefly explained the linkage through the Compliance Workshop and that the IRM Exec had told me to give a presentation to the Regional Services Board. Karl looked at me and said: “Greg, we don’t have a lot of time – what did you want to tell us?” “I have a PowerPoint presentation to show”, I began. Karl said: “No – can you please just talk to us.” I said “OK”, realising that I would not get a chance to show them the concepts on negotiating extension that I had worked on, nor would they be compelled to read the accompanying Project Proposal document. My time had been cut drastically short. Nonetheless, I proceeded to tell of the IRM Exec’s support for progressing extension in DNR&M. Reading a section from the script I had with me, I said: “Karl, this proposed project is about Extension Planning in DNR&M, and about efforts for building DNR&M organisational capacity to more effectively achieve voluntary compliance and participation in planning.” He asked: “So where is it focused?” I could see he was sceptical. “We would look at identifying specific extension plans for each DNR&M Region and then initiating a cross-agency, multi-stakeholder NRM extension planning processes to put action on the ground (Leach 2003)”, Karl paused for some time. Then he looked me squarely in the eyes and said: “Greg, we’ve made a political decision, some time ago, that we are no longer involved in one-on-one extension contact with landholders. And, besides, the work you are proposing is in the province of the Rural Partnerships Officers. Isn’t this their responsibility in the regions?” I could see that this was not going to be easy. “Yes, Karl, in some ways it is, but this is a project to support these officers in inquiring into effective extension service options that are required across the whole DNR&M service delivery spectrum.” Then Jon Sturgess stepped in. “This is working with facilitators and coordinators isn’t it? We have just stepped back from this support for Landcare and catchment groups. We are no longer in this business.” “But the IRM Exec recommended that this project go ahead and that the Regional Services Board should be the steering committee”, I offered, feeling that they had missed the point. “They agree that we are no longer in one-on-one extension, but that we need something to replace it for compliance and participatory planning.” Karl replied with some force: “What right has the IRM Exec got to demand from us that we fund an extension project and steer it? I will talk with another DDG, Sam Plenty, about this.” Then I tried a different tack. “But what about the public good aspects of compliance and planning, particularly in the market failure zone? No-one is delivering in any of these areas”, I contended. Again Karl turned to me and said: “Unfortunately, Greg, we are working on the basis of Government priorities, and at the moment, this is not one of them. It is obviously a strategic need, but at the moment we do not have political support nor the finances to support you.” Bruce Parker from the other corner of the table leaned across and said: “Greg, you better come back again next Christmas. We might have a present for you then!” While I tried for some more moments to engage the minds of those around the table, it was seemingly in vain. Karl looked at Bill and asked: “OK, what is next on the agenda? Thanks Greg.”

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\(^94\) Kerry was a highly experienced advisor in the planning and information policy sections of the Department and had considerable exposure to executive level processes.

\(^95\) Deputy Director General
I walked out feeling quite dejected and thinking that I had missed a perfect opportunity, having effectively let down three years worth of effort to get extension back on the agenda. I resolved to myself to see Tom as soon as possible and see where we might go next.

7.2.2 A position paper on NRM extension – 2004

Early in January 2004, I called Tom and asked if I could come and see him with my supervisor, Larry Biddle. At the meeting, I asked: “Tom, we are rallying into the new year and drawing up workplans – I was wondering what you might think we can usefully contribute to the extension process, especially in light of our failure last year with the Service Delivery Board?” Tom seemed quite optimistic: “You know that the National Party in the South West is really pushing for more effort in extension”, he said. “Maybe this will have some impact. But I think that we really need to concentrate on the fact that DNR&M staff currently have their hands tied with the current requirements. Sure we have the big ticket items like compliance with the Veg Act, Riparian Management, and the Reef Plan, but we need to identify how we can do this more effectively using extension processes.”

Larry then asked: “But what would you target, Tom?” Tom was pensive, then offered: “It would be best to isolate a business area that needs to be addressed – and be very specific on our boundaries. For instance, you could identify five out of five hundred issues, but be open and transparent about the results that are achieved through using a different extension process.” Then he went on: “The big issue for all the departments – DNR&M, DPI&F and EPA – is dollars – added to the fact that our approach has moved from extension to policy. But the funny thing is that I still see a role for extension. Maybe you should identify options to address core business needs. It would be very good if you could develop an options paper for extension – and then run it by the NRSc Board, the IRM Exec and the Service Delivery Board. Remember, though, a big learning from New Extension was that it did not have a hook, something that demonstrates how good extension practice adds value to a micro part of it.” We agreed with Tom that we would pursue this further.

While I did not have adequate time to follow up on Tom’s suggestion of an in-depth options paper, I began a process of collecting perspectives from a number of DNR&M managers, including Tom himself, to put in a briefing paper to go toward a national extension policy discussion (see Chapter 9). A briefing paper was developed through contacting a number of staff recommended by Tom for scoping the perspective in his group (Catchment and Regional Planning) as to the role and function of extension currently in DNR&M. 96 My engagement with these staff was very productive, because with Tom’s invitation for them to participate, along with their recognised support through the New Extension process (Chapter 2), provided each person with a chance to formally contribute their views on extensions role relating to their particular business. Each person was quite enthusiastic to be provided with a chance to lobby for a renewal of New Extension in DNR&M.

In summary, the briefing paper was titled ‘NRM extension in DNR&M (Qld Govt): Moving to a dispersed delivery model’ and was authored by five senior management staff. Each person agreed to draft their own section of the paper and outline, from their perspective, the role of extension in achieving desired outcomes for their NRM portfolio. The paper was then a compilation of the sections with an introduction and conclusion that was agreed to by all. The paper presented options for extension’s role as a non-coercive policy instrument and service delivery model to balance the NRM planning-compliance agenda in Queensland. A series of factors were suggested that move extension toward dispersed service delivery:

- Maturing NRM legislative role – a move to coercive instruments
- Regional NRM Bodies and processes – expected to take on extension roles

96 As this paper was not endorsed as Government policy it cannot be reproduced here.
- Changing NRM governance – increasing expectation of inclusive decision-making
- Agency withdrawal from traditional one-on-one ‘transfer of technology’ extension
- Competitive neutrality in Queensland government – more private service providers
- Changing information needs – met by much greater range of providers
- Move in focus – improving production from landscapes changes to improving sustainability of landscapes

An argument was put forward suggesting that non-coercive services, such as extension, leads to longer term ownership of solutions to issues and behaviour change as opposed to coercive tools such as regulation which lead to poor ownership of the solution and only short term behaviour change.

Following four cases that present extension approaches in DNR&M, a dispersed service delivery model was proposed which included stakeholder extension and service delivery roles.

<table>
<thead>
<tr>
<th>Stakeholder</th>
<th>Extension Role</th>
</tr>
</thead>
<tbody>
<tr>
<td>Government</td>
<td>Extension role is becoming more focused. Govt has a ‘source’ function for information, science, planning and policy</td>
</tr>
<tr>
<td>Private sector</td>
<td>Interpretation of information</td>
</tr>
<tr>
<td>Industry</td>
<td>Promote long-term Sustainability of its sector + Advisory role.</td>
</tr>
</tbody>
</table>
| Regional Bodies     | These regional bodies have the challenge of possibly taking on some of the historic extension role of State government and refocus the leanings to enable practice change and responsible NRM behaviour. Regional Bodies have the following roles:  
  1. Information extension – capacity building
  2. Data handling – internal, regional, state, Commonwealth
  3. Participatory monitoring role – To demonstrate achievement of targets |

Table 7.2: Agreed extension roles for different NRM stakeholders

Preparing this briefing paper provided an outlet for a number of middle managers who strongly supported the value of extension as a non-coercive tool for achieving desired NRM outcomes. These middle managers even went as far as to indicate where extension should be used in current DNR&M business:

1. Increasing voluntary compliance with legislation – through using non-coercive awareness building, education and interactive processes in collaboration with other stakeholders
2. Enhancing participatory planning – through providing facilitation, networking, learning and negotiation support in collaboration with other stakeholders

Authors of the paper saw the coordination of the ‘NRM extension system’ in Queensland as an issue and suggested an open call for expression-of-interest for stakeholders to be involved in an ‘NRM extension coalition’. This could identify the common core of extension service delivery, and further develop effective coordination to achieve desired NRM outcomes.

This paper was never intended to be a whole of department perspective on the role of extension, simply a snapshot. Understandably, it did require approval before being permitted to be tabled as an example of agency approaches to extension in wider discussions about the discipline. This process of approval was problematic for some senior managers,
however, and therefore the above needs to be recognised as a DNR&M working document, rather than an agreed position on extension across the department. While this paper was tabled at the Service Delivery Board, there appeared to be no conclusive result from discussions. We had missed the boat.

As this process ground to a halt, I met with Tom Dreschler where we both acquiesced with the prospect that resurrecting extension within DNR&M seemed very improbable at this time. While the authors of the briefing paper had demonstrated centres of enthusiasm, and Tom even mentioned a new source of energy in Ralph Bender, the Director of Economics in DNR&M, the general agreement was that we had tried the best we could. It appeared that conditions conducive for a productive negotiation process were absent, with little representation of a network of interdependent extension stakeholders, limited shared concern, a lack of political support, and ultimately with no process leader or driver, apart from myself.

7.3 Analysing episodes: Challenges for further research

Analysis of both episodes is provided below with the aim of explaining the dynamics that occurred. This analysis also responds to the research questions and further theoretical considerations outlined in Chapter 6.

7.3.1 Considering stakeholder approaches to RWUE and New Extension negotiations

Arguably, in both episodes the negotiation processes employed resulted in less-than-optimal outcomes for those instigating the interactions. The RWUE outcome fell short of being a non-event simply because the political support for the program coincided with the scenario-planning efforts. The New Extension outcome highlighted the fact that stakeholders at different levels of power (or policy) held divergent positions on the role of public extension, but the lack of a policy window where negotiation can take place did not allow these positions to be openly deliberated.

The dynamics in these episodes are different. In RWUE, opportunities were perceived by many stakeholders, and a solution (the outcomes of the scenario-planning process) fortuitously existed when political support (policy windows) became available even when mismatches in negotiation approaches, such as between competitive (e.g. Tim’s secret plan), collaborative (e.g. the Scenario Planning team approach), accommodative (e.g. the appreciative inquiry approach Jo Neldner used), occurred during the process. Arguably, private extension was within policy discourse, but with New Extension very few saw opportunities, and public extension contravened dominant policy at that time.

The challenge with this way of thinking, however, is that it implies the ‘harbingers of good’ are executive managers and that operational policy staff and practitioners have no influence on policy positions. Those people who planned the scenario planning exercise and those who wrote the discussion paper for New Extension were certainly of the belief that the policy development process needs to include knowledge and priorities from different levels in DNR&M as well as political influences.

Impediments to successful institutional NRM negotiation processes

The three tiers or systems of decision-making described in the RWUE episode could be considered as separate, yet interdependent, human activity systems where each of these
levels maintains a ‘locus of self organisation’. It seems, however, that while a number of managers participated in the scenario planning exercise, the interface between the management decision-making system and the RWUE decision-making system was problematic. It appears that communication and negotiation across the boundaries between these nested systems is a challenge, particularly in light of the hidden agendas of different parties and at different levels.

A key learning from this episode is that management practice within DNR&M may differ from Leeuwis’s (2004) appraisal of institutions involved in extension. While Leeuwis suggests that, in practice, these organisations often elect to ignore and avoid threatening developments in their (internal) environment, another explanation is possible. As demonstrated by the first four episodes in this research, the ultimate success of organisational change initiatives in DNR&M is strongly dependent on the alignment of different social or structural levels within the department, and especially the relationship between individual change and collective change. Rather than consciously ignore or avoid threatening developments, the institutional response becomes paralysed by ineffectual cross-boundary interactions amongst autonomous individual entities in nested systems within the organisation.

The ‘Beyond New Extension’ episode suggests that efforts concerning the institutionalisation of extension within DNR&M in 2003-4 appeared to have become much more dispersed since the New Extension process of 1999-2001. The above-mentioned briefing paper points toward a dispersed extension system that involves an extended suite of stakeholders including industry, regional and private providers. The small number of human activity systems supportive of extension seemed increasingly disconnected from mainstream decision-making processes in the department. Arguably, these nested systems may still be eager to support a process of organisational change should other external or internal systems become engaged in advancing the position of extension within DNR&M. Members within nested systems in the distributed extension system, when faced with the dilemma of whether they should be integrating with other systems or contesting space, have chosen to integrate. While this has been partially successful in the RWUE episode, the replication of the extension meme, particularly public extension, is far from successful.

One challenge is to identify who should be corralling effort in the wider extension network to instigate a human activity system comprised of interdependent components (or stakeholders). Possibly an even more critical task is to identify the most effective methodology for marshalling conflicting perspectives on extension.

Further research is required into negotiation practice at the boundary interface between the different nested systems and layers. Also, longitudinal research is needed beyond the snapshot or episodic technique in organisational arenas involved with extension policy, providing a holistic and dynamic analysis of ‘changing in action’. This may provide some insight into the ‘era of ferment’ (see 6.2.1) and time lag between the initial investigations (such as the scoping phase of the New Extension Strategy) and acceptance by managers to proceed.

The role of paradigms within negotiations
In investigating the paradigms of those involved in the RWUE episode, it proved inconclusive that paradigm differences were directly attributable causal factors to success or failure, mainly because they were never openly discussed or negotiated amongst different stakeholders. At the RWUE program level, the prominent paradigms were the more constructivist (inquiry
based) leanings of Deborah, Matt and myself who were endeavouring to investigate and learn from the divergent interpretations of critical uncertainties in RWUE’s future. At the management level, however, Tim and a number of other senior staff demonstrated more instrumentalist (autocratic or controlling) leanings. Tim believed his future plan was ‘right’, and his ongoing reluctance to support other stakeholders’ participation in an inclusive negotiation process. This was even when, by his own admission, these other stakeholders were supportive of the RWUE program’s continuation. At the manager and Ministerial levels, insufficient data was collected to draw any firm conclusions.

The prominent paradigms in the Beyond New Extension episode are diverse and difficult to identify. Broadly speaking, there was a tendency of Regional Services Board members to align with a coercive change paradigm focused on politics, legal obligation, power, economics, cost-benefit and funding capacity and contest the legitimacy of the voluntary change paradigm commonly associated with extension. The IRM Exec and Tom Dreschler by contrast, were in search of a paradigm that would underpin new or different ways of interacting with NRM stakeholders. They saw extension as a means for enabling voluntary change in individuals, communities and industries involved with natural resource management. There was an obvious clash of coercive and non-coercive change paradigms.

Moreover, this indicates that the underpinning value (axiology) that stakeholders attribute to different paradigms may be divergent, along with differences in perceptions, beliefs, and attitudes toward reality (ontology) and sources of knowledge (epistemology) amongst different stakeholders. For example, in the Beyond New Extension episode the value Tom Dreschler attributed to the extension voluntary change paradigm was much greater than that of the leader of the Service Delivery Board. In dealing with these individuals in quickly became apparent that perceptions and attitudes toward reality were markedly different. Tom’s background for three decades as an applied research and extension agronomist, complete with numerous non-coercive dealings with landholders, influenced his beliefs and attitudes and provided him with numerous sources of knowledge that was evidenced through his language and actions. He strongly supported extension as a vehicle for operationalising the voluntary change paradigm. Karl Withers, by contrast, had a strong regulatory and policy development background related to resource management, with his sources of knowledge firmly grounded in administration and legislation. His perceptions and beliefs in support of coercive change paradigm were also evidenced through his language and actions. Even though these differences are obviously perceived by conflicting stakeholder groups and may be apparent through analysis, there seems to be a lack of incentive for paradigms to be articulated, negotiated and for epistemological positions to be identified. Perhaps methods that trigger or create this paradigmatic conflict are necessary for moving people outside their comfort zone and instigating negotiation of intractable issues.

**Memes at the centre of negotiations**

The pre-eminent meme in the first episode was RWUE\(^9\) and the scenario planning exercise was centred on the survival and institutionalisation of this meme. Although it is only one acronym in the myriad of agency projects and titles, the previous successes of this program sees that RWUE is well recognised by a large number of industry and agency stakeholders. An underlying meme of ‘industry-led extension’ was a key foundation in this exercise and its continuation was largely contingent on replication of the RWUE meme.

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\(^9\) RWUE is considered as a surrogate term that represents extension for water-use-efficiency
By contrast, the pre-eminent meme in the Beyond New Extension episode was ‘extension’. Further efforts to enhance the explicit survival and institutionalisation of this meme were largely unsuccessful. Perspectives highlighted in the briefing paper indicate that support for this meme does exist in DNR&M at the operational level. However, it appears that the extension meme is not endorsed departmentally, particularly at senior levels, while support for extension continues to exist in separate business groups with limited interdependence.

Other contributing memes were the subject of considerable attention in both episodes. These memes included ‘stewardship ethic’, ‘participation’, ‘compliance’, ‘leadership’, ‘negotiation’, ‘facilitation’, ‘creative thinking’, ‘monitoring and evaluation’, ‘conflict resolution’, ‘partnership’, ‘regulation’, ‘natural capital’ and ‘privatisation’ (amongst others). Generally, it would appear that memes associated with ‘coercive change paradigm’ had a greater prospect of being replicated in DNR&M than those associated with the non-coercive change paradigms.

**Bridging the gap between how actors understand NRM issues and the memes central to negotiations**

Many memes were discussed at length in both episodes, with a view to influencing the replication of RWUE or Extension. Stakeholders were endeavouring to repackage these contributing meme elements into the higher-order RWUE and extension memes. Arguably, RWUE’s continuation is a demonstration that the extension meme may be replicated by purposely not including the term ‘extension’ in interactions with managers and decision-makers. Stakeholders involved in this episode did not emphasise the industry-led extension meme, choosing to use terminology attractive to decision-makers. There was some effort in DNR&M to package similarly appealing memes into a capacity building strategy, arguably to fill the gap left with the demise of the unpopular New Extension Framework. It seems that the struggle to institutionalise extension has moved to the capacity building meme and yet replication of this meme is also problematic. Even though it had been developing for over four years, the capacity building strategy also lacks formal endorsement from senior management.

It appears that actors construct their understanding of the extension paradigm differently, based on their coercive, designed outcome (teleological) or non-coercive, emergent outcome (evolutionary) change preferences. A key learning from these episodes is that the intentional replication of the extension meme internally within DNR&M may occur through underhand means with supportive stakeholders aligning extension services with another more popular meme such as RWUE. Some people supportive of the extension meme seem to revert to deception in order to manoeuvre negotiations toward the replication, and thereby institutionalisation of this paradigm.

**Considering extension’s role in institutional NRM negotiations**

It could be argued that both episodes are concerned with wicked problems, which are ill-defined and rely upon elusive political judgment for resolution. Herein lies a critical issue for this thesis. Episodes to date have further confirmed my conviction that extension has a function in supporting learning and decision-making within the organisational environment as well as with external clients such as landholders. These two episodes highlight the fact that the design and facilitation of interactive processes to connect and gain synergy from nested memes is essential to enhance the explicit survival and institutionalisation of extension. Some people supportive of the extension meme seem to revert to deception in order to manoeuvre negotiations toward the replication, and thereby institutionalisation of this paradigm.

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98 As per Rittel and Webb (1973)
systems with an institutional stake in programs such as RWUE and New Extension help enable dialogue, deliberation and negotiation about their future direction and role.

These interactive processes appear to occur in at least three levels of hierarchy and power: operational, senior management, and political (Ministerial) levels. It was strongly identified that the facilitation of intra and inter-organisational multi-stakeholder negotiation processes is an essential component of institutional functioning within the NRM environment. However, it was not commonly understood that extension played a key part in this. While all cases in the Extension Briefing Paper were strongly supportive of the external roles of extension with landholders, they strongly highlighted that DNR&M has an internal issue with extension, rather than an external problem. Different extension models need to be applied and further developed to support and build capacity of different regional, community and industry NRM stakeholders and DNR&M staff for working together effectively.

A small number of middle managers in DNR&M recognise that extension has a role in supporting internal development and decision-making processes through facilitating learning, cross network development and negotiation. Further research is required, however, to test and demonstrate conclusively the roles extension plays in inter as well as intra-departmental interactive processes. If we consider the triple-loop-negotiation model proposed in Chapter 6, while in both these episodes there was considerable effort to progress deliberations into negotiating the negotiation approach and process – the Third Loop, the results from both exercises were varied.

7.3.2 Understanding multi-stakeholder negotiation to institutionalise extension

In the following sections, these episodes are analysed in light of the conceptual tools identified in Chapter 6 to help enable better design of institutional negotiation process and interface different negotiation approaches.

Assessing Adaptive Management and Lazy-Eight organisational (and ecological) change models for explaining institutional multi-stakeholder NRM processes

Resolution of the RWUE dilemma was certainly assisted by the working group taking an adaptive management approach, cycling through the Adaptive Management Framework (AMF), and learning-by-doing through the completion of scenario planning activities. The proposition that recursive iterations of the AMF may be nested within separate stages of the Lazy-Eight is also verified in this episode. At the initiation of the project, it could be argued that RWUE staff were in a state of confusion as the current RWUE program was drawing to a close and, despite its obvious achievements, its future was uncertain. With charismatic leadership, the group was enabled to form a working group as a strong, creative network that was able to plan and implement a reasonably complex scenario planning exercise. The ownership this creative network developed provided the group with the choices required to implement entrepreneurial action and to reinstitute the third phase of the program, RWUE 3.

By contrast, the Beyond New Extension episode illustrated that iterations of the AMF were not enabled effectively, and it was not possible to progress from the confusion stage successfully through the ‘charismatic leadership’ to creative network in the Lazy-Eight. Key stakeholders at the centre of the process could not negotiate amongst themselves the best route for taking the initiative forward. Notwithstanding the non-result, the Lazy-Eight certainly provides a useful model for assessing and explaining the progress and success of the initiative and factors to improve upon in subsequent efforts. The AMF and Lazy-Eight models
also help contextualise the possibility that a considerable era of ferment, or time lag, is required between initial negotiations and acceptance by managers to proceed.

Considering how the triple loop negotiation model enables autopoietic organisation in the design, facilitation and conduct of multi-stakeholder negotiation

Even though conflicting points of view were rarely discussed openly through most interactions in the RWUE episode, there was considerable inconsistency in how different stakeholders perceived the program. Significant negotiations occurred at three discrete levels within the RWUE program: at the project level, among the primary stakeholders and practitioners, at the DNR&M management levels, among managers in the Water Management and Use business group, and then at the political level between the Minister and the peak bodies representing irrigators.

While the manager of the RWUE program had ongoing reservations regarding the legitimacy and outcomes of the scenario planning exercise, many of his staff had collective confidence in the methodology. In particular, Deborah and Matt were eager to collaborate with other stakeholders and focus on relationships and the substantive issue to resolve issues as part of an ongoing consensual negotiation process. They went to extreme lengths and progressed an elaborate Scenario Planning exercise to advance a clever form of principled negotiation through collective decision-making. Their managers, by contrast, saw this as an unwanted negotiation and were, unbeknownst to RWUE staff, intending to dispose of the RWUE program and divert unspent funds elsewhere. It appears, however, that in the end, the political level was the key determinant as to whether RWUE continued or not. It was only through accommodation that the peak body was granted their wish (or substantive outcome) on the strength of maintaining its relationship with the Queensland Government. Arguably this demonstrates that power in the form of a top-down autocratic decision was the key determinant in this negotiation process, with the desire for political gain countervailing both decisions of DNR&M managers and the scenario planning outcomes and recommendations progressed on the initiative of RWUE staff.

One factor leading to the success of the scenario planning exercise’s contributions to consolidating RWUE’s future was the explicit nature in which decisions about the decision-making process were enabled among the primary stakeholders and practitioners. The Scenario Planning Steering Group [SPSG] moved to a more advanced state of autopoietic organisation where, through self-management, this nested system was able to determine its own form and process. The ongoing reflexive nature of the SPSG, where members openly challenged each other’s assumptions within each scenario and deliberated how decision-making should occur, was a key success and demonstrated that this methodology could help negotiate RWUE’s continuation. A key driver enabling autopoiesis was the collective desire for the RWUE meme to survive, and to be replicated in a state suitable for all stakeholders. Arguably, this triple-loop process successfully moved into the third loop, however other key stakeholders of the RWUE program should have been involved. Also, there may have been some advantage in inviting the three decision-making levels to open decide how the decision-making process may best proceed. While the SPSG did not get all negotiation conditions right, Scenario Planning improved the predictability and alignment amongst organisational levels and RWUE stakeholders.

The third loop of the Triple-Loop-Negotiation model was explicitly targeted in the ‘Beyond New Extension’ episode, however, outcomes were disappointing, particularly with Tom Dreschler and the IRM Exec. Each of these stakeholders were unclear about the best way for
negotiating within the department to re-engage efforts and further progress an extension strategy for DNR&M and wider stakeholders. Had discussions with the Regional Services Board been focused on the triple-loop nature of engaging other stakeholders in DNR&M and identifying how the Board could negotiate with other internal and external stakeholders, perhaps the outcome would have been different. Following the line of the briefing paper, perhaps it will be beneficial to facilitate triple-loop-negotiation with the wider extension system in Queensland and Australia in the next phases of this negotiation process rather than concentrating only within DNR&M (See chapters 9 and 10).

In numerous interactions within the Beyond New Extension episode, considerable inconsistency in how different stakeholders view the extension meme was evident. This episode saw that a lack of interdependence in DNR&M was a key reasoning behind why the negotiation strategy of most stakeholders oscillated between avoidance, accommodation and competition, with most maintaining an avoidance strategy when it came to deciding what extension’s role and function needed to be. When the issue was raised (e.g. with the IRM Exec and the Service Delivery Board), approaches to dealing with it were inconsistent. The disparity between the IRM Exec and the Regional Services Board saw a mismatch in perceptions of the political dynamics surrounding the negotiation process. The IRM Exec saw extension balanced between an ongoing consensual and discrete consensual negotiation whereas the Regional Services Board saw it as an unwanted negotiation. Conflict was rarely discussed and might be labelled a latent conflict by numerous stakeholders.

These episodes show that a mismatch in perceptions of the political dynamics and prevailing policies surrounding the negotiation process can result in divergent outcomes. Where these perceptions align and negotiation approaches amongst stakeholders are agreed (e.g. scenario planning), collaborative outcomes can result. Importantly, both episodes suggest that negotiation approaches may need to be explicit between as well as within different levels of power. In the second episode particularly, negotiation was strongly influenced by the power of Karl Withers and the Regional Services Board, who effectively halted the institutionalisation of extension within DNR&M. Their policy position thwarted access to institutional support within DNR&M and also disempowered departmental stakeholders seeking to legitimately (officially) align extension efforts with other Queensland Government agencies. It appeared that, if an extension coalition were to develop amongst extension practitioners at lower operational levels in DNR&M and other agencies (e.g. the dispersed model of NRM extension described in the above-mentioned briefing paper), this power issue would continue to prevent improved intra and inter-institutional alignment of extension efforts. A means is required for exploring, making explicit and indeed resolving the paradigmatic differences that underpin the barriers between the different levels.

It could be argued that critical and more inclusive consideration of the negotiation process in both multi-stakeholder activities may have enabled deliberative interactions that were closer to those desired by parties initiating negotiations. With New Extension, it would have been beneficial to discuss in greater detail than I did with The IRM Exec, Bill Houseman and Tom Dreschler about the best way to approach the interaction with Service Delivery Board. With RWUE, it would have been advantageous to collectively identify the essential stakeholders to engage. In subsequent research, further investigation is required into how the triple-loop-negotiation concept can be enhanced for enabling reflexive design of the negotiation process inclusive of the essential stakeholders.
In what ways do adaptive management, the Lazy-Eight and triple-loop-negotiation influence the constructivism-memetics dialectic

One could claim that the ‘constructivism-memetics dialectic’ achieved a more productive outcome with the RWUE episode, however, the positive result may have had more to do with fortuitous mutual alignment of aims between the Minister’s office and the RWUE management structure. At the operational level, the process of developing four scenario stories was a classic example of how participatory processes enable consensus amongst representatives from different nested systems. Dialogue and analysis enabled individuals within the RWUE group to develop sufficiently aligned constructions of the four memes to the point where they reached consensus on the desirability of partnerships. Therefore, in the working group the constructivism-memetics dialectic resulted in an autopoietic system in which the coherence amongst members was actively promoting (replication of) the partnership meme. The self-regulating strengths (e.g. adherence to scenario planning procedures), self-produced components (preferred scenarios for RWUE’s future) had the direct aim of the RWUE program being self-sustaining over time. The autopoiesis of the Scenario Planning Working Group (as a self organising entity), separately from management and political levels, was a key impetus propelling the replication of the RWUE meme. Arguably, the aim and ex post outcomes of this autopoietic group were to enable the continuation of RWUE3. It was quite surprising however, that replication of this meme in management circles within DNR&M and irrigation industry stakeholders was in fact coincidental to the RWUE working group’s outcomes.

In the Beyond New Extension episode, the lack of coherence in how the memes surrounding extension (or capacity building) were interpreted by different DNR&M business groups probably led to its slow demise. Interpretations varied with the different constructions of meaning that individuals have for extension and its component memes. The Service Delivery Board’s non-endorsement of extension meant that engaging various DNR&M stakeholders in this constructivism-memetics dialectic was much less possible using legitimate (officially supported) means. When I then attempted to advance this dialectic further with some senior management staff in DNR&M, most remained defensive and unwilling to reconstruct their understandings of the extension meme, nor to encourage its replication across the department. Conversely, the briefing paper identified a number of individuals with enthusiasm for extension in some business groups and recommendations inferring that this dialectic be initiated across a broader suite of stakeholders beyond DNR&M, including regional bodies, private providers and community groups.

The constructivism-memetics dialectic was occurring within the different organisational levels in both episodes. Divergences were evident in how stakeholders played-off their constructions of the RWUE and extension memes with other stakeholders. The continuous-improvement basis of the AMF explains how stakeholders in each nested system strived for better coherency between the memes members are exposed to and how they constructed their understanding and reproduction of these memes. The Lazy-Eight change model provides a cyclic social context within which the success of failure of the initiatives and positions put forward by nested systems at different levels were positioned and negotiated where responsibilities overlap. Triple-loop-negotiation enabled reflexive interactions within the RWUE nested system, and between higher level nested systems when they converged at

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99 Interestingly, two of the key stakeholders supportive of extension were marginalised in the months following this episode, with one, a General Manager, being asked to resign, and the other’s business group being dissolved and staff re-assigned into other ‘higher priority’ functions.
different stages of the Lazy-Eight change cycle. Triple-loop-negotiation assisted the capacity of members within and between nested-systems to negotiate toward closer alignment in the constructivism-memetics dialectic.

It might be argued from these episodes that limited consideration of the relationship between how individuals socially construct meaning and what factors influence the ability of concepts to be successfully transferred and replicated may contribute to suboptimal outcomes when negotiating the future of complex concepts such as RWUE or extension. In both these cases, a means to initiate and/or facilitate this as a dialectic relationship with individuals or groups of stakeholders was lacking. Further research is needed to develop tools that help open the communicative space required for enabling and investigating the value of this constructivism-memetics dialectic for negotiating complex policy tools.

### 7.3.3 Enthusiasm

The enthusiasm and motivation of participants was a key aspect that drove the success of the RWUE Scenario Planning process. In particular, the enthusiasm of Deborah and Matt for doing something different was quite contagious. In my role as facilitator for the design and writing phases of the scenario development process, I particularly focused on gaining value from the enthusiasm of these two people. Deborah for her eagerness to embed the scenario planning language and concept in her communication with RWUE stakeholders, particularly Tim. And Matt, for his pragmatic sense of connectedness within the RWUE group and industry partners. Furthermore, with Deborah and Matt, I consciously made efforts to ensure a fun element in our activities (such as holding larger RWUE workshops at Brisbane Forest Park, a popular location with a welcoming natural appeal) aiming to create a positive and enthusiastic atmosphere. The synergy unleashed from aligned enthusiasms was a primary driver for connecting with the motivations of other RWUE stakeholders and ultimately influencing the future of the program.

By contrast, reflections on the Beyond New Extension episode include the issue that my enthusiasm for extension and its repositioning within DNR&M was shared with only a select few people within the department. While I endeavoured to encourage this enthusiasm within interactions through the IRM Exec and other stakeholders within DNR&M, it was not sufficient to garner the interest of the Regional Services Board. Perhaps engaging with the enthusiasms of the wider extension system as suggested in the briefing paper would have been productive. Additionally, investigating and aligning with the enthusiasms of those key stakeholders unsupportive of extension may be advantageous in further encounters.

From these episodes, the very enthusiasm (or motivation) that drives different stakeholders, either with RWUE or extension, provides the driving force that enables the success or failure of these multi-stakeholder negotiations and initiatives. Arguably, working with enthusiasm needs to be key feature of a tool to help organise and facilitate complex multi-stakeholder NRM negotiations. This area of enthusiasm (motivation) requires further investigation.

### 7.3.4 Enabling democracy

The episodes examined in this chapter further illustrate that the political or administrative system overseeing DNR&M, as well as other extension agencies, has a fundamental influence on the types of instruments that are preferred and institutionalised for achieving desired results. In turn, this boils down to Australian systems of political, corporate and social governance.
Australia is a representative democracy, a system of government in which the actual power to govern is granted by the governed people (Gleeson 2001). While it is not the place here to delve into national governance systems, it is useful to consider that the Australian people are socialised through a democratic national governance system that institutes political negotiation practices through bicameral, multi-level structures. It is therefore not surprising that within negotiation processes, such as described in these (and earlier) episodes, participants expect that multi-stakeholder negotiation process within government, while democratic, will still occur at different levels of power and jurisdiction.

My analysis is that extension can play a role, as with the RWUE and Beyond New Extension episodes, in facilitating subsidiarity, or enabling negotiations at the right level of governance at which useful decisions can be made in a democratic manner. Within each episode, as interactions entered the third negotiation loop, and discussions focused on the identification of the appropriate stakeholders to engage and the best approach to enabling deliberative discourse, key participants pursued a strategy of creating a self-organising, nested group, comprised of multi-stakeholder, multi-level and multi-role members. Arguably, an unspoken aim of these groups was to facilitate subsidiarity through enabling nested deliberations and governance process (Marshall 2008) that resulted in binding and effective outcomes. While in both episodes it was evidenced that the facilitation of deliberations may not have included participants at the most appropriate levels, it is arguable that such a facilitation role will be an increasing requirement of nested governance processes. This is particularly so when information and computer technology provides us with more capacity to move towards participatory democracy.

7.3.5 Emergent learnings from RWUE and New Extension negotiations
Following are a number of conclusions from these research episodes in terms of approaches to negotiation and the implications of this on the institutionalisation of extension:
1. A lack of communication and negotiation across the boundaries between nested systems, particularly at different levels of power or policy, is a key impediment for the success of multi-stakeholder processes in DNR&M.
2. Further research is required into enabling negotiations at the boundary interface between the different nested systems and layers in DNR&M.
3. Clashes between coercive and non-coercive change paradigms seem to result in the domination by coercive change supporters and causes paralysis and submission amongst the non-coercive change supporters.
4. Some middle managers in DNR&M recognise that extension has a role in supporting internal development and decision-making processes through facilitating learning, cross network development and negotiation.
5. The Adaptive Management and Lazy-Eight change models help explain the dynamics and temporal characteristics of multi-stakeholder negotiations.
6. The enthusiasm (or motivation) that drives different stakeholders enables the success or failure of these multi-stakeholder negotiations.
7. The importance of hidden agendas, and the difficulty of really clarifying what is being negotiated anyway.
8. The fact that DNR&M support for the extension meme (albeit private extension service delivery) does survive under another banner (RWUE).
9. It is very important to strategically use language that is accepted and aligned with beliefs and values of people from different organisation levels and roles.
10. Extension can play a role in subsidiarity, that is, in finding the right level of governance at which useful decisions can be made in a democratic manner.
From this chapter it has been evidenced that the triple-loop-negotiation model provides a useful means for conceptualising and assessing deliberative, multi-stakeholder processes. Thinking in this manner has proven to be valuable for guiding me, as a facilitator, in manoeuvering interactions to include reflexive questions and discussions leading to greater self-organisation within the work groups in both episodes. It has continued to be difficult, however, to introduce to a group as a conceptual and/or facilitation guide for others involved in deliberative activities. Further research is required into how the triple-loop-negotiation concept can be introduced for enabling reflexive and inclusive design of the negotiation process.

Important here is a need to explore the literature for linkages between contemporary extension theory and practice, the role of negotiation, and valuable considerations for influencing and facilitating organisational change processes.
Chapter 8: Intermezzo II: Triple-loop-thinking and institutionalising extension

Agreement cannot be imposed, but rests on common conviction (Habermas 1984). Conflict is a naturally occurring phenomenon that has both constructive and destructive potential, depending on how it is managed. Engaging in conflict tends to generate anxiety in many people who associate it with negative or violent outcomes, which leads to fight-or-flight responses. In fact, conflict can provide a uniquely human opportunity to learn about ourselves and others, to motivate necessary changes in the status quo, to challenge obsolete ways of thinking, relating, working, and to innovate. Thus, the objective is not to eliminate conflict, but to help establish the skills and settings for its constructive resolution (Coleman and Fisher-Yoshida 2004).

Responding to the questions raised in Chapter 7, this chapter details an exploration of the literature and converges on a model that aids understanding of the relationship between negotiation practice in NRM and the (institutional) role of extension. This theoretical search began towards the end of 2003 and continued until 2005 with the aim of explaining and grounding episode challenges and learnings in relevant literature. It was valuable to consider discussions in the extension discipline in Australia at this time (2003-04). Extension’s role was changing in response to a developing theoretical discourse, broadening NRM and social agendas, and shifting institutional landscapes around capacity building.

8.1 Towards a participatory NRM negotiation model: A portal for introducing and re-institutionalising extension

Leeuwis (2004) argues that there is a need to move extension from the current crisis (see Chapters 2, 3 and 4) toward a wider mission of:

Bringing about new patterns of coordination (i.e. innovations) through the facilitation of learning and negotiation processes … An implication of such a new mission would be that process management becomes an important task and role for organisations aiming to stimulate rural innovation (Leeuwis 2004:302).

Such a mission for extension would have societal implications in Australia for rural communities. Even though Federal and State governments have been seeking to empower regional areas to develop their own agendas, they have not ‘let go’ of their traditional power positions. Because Australia’s federal political “system currently tends to respond to power and conflict rather than new strategic thinking ... [based on] genuine negotiation and to facilitate innovation and excellence” (Head 2007: 163), new tools are needed for enabling innovation in rural and regional communities. The risks of a rigid power-based governance system are that the conflict becomes either a passive symbolic ritual, or else becomes a polemical exercise in blame-shifting and confrontation. Differences are important in a healthy system and the negotiation of different viewpoints can be a useful catalyst for innovation and progress. Australia needs specific machinery to encourage genuine negotiation and to facilitate innovation and excellence (Head 2007).

Leeuwis’s (2004) model of extension (or as he terms it ‘communication for innovation’)
makes a strong link between negotiation and extension. He argues for:

**Network Building, Social Learning and Negotiation** as the key processes that are to be supported in deliberative efforts to induce change and innovation. The term **network building** refers to the idea that change and innovation imply the establishment of new relationships between people, technical devices and natural phenomena. The idea of **social learning** captures adequately that change has something to do with individual and/or collective cognition changes of various kinds. Finally, the term **negotiation** is used to indicate that meaningful changes of the status quo are likely to go along with conflicts of interest between stakeholders, and that such conflict needs to be resolved (at least to a certain extent) by means of conflict management strategies, such as negotiation in order to make this change possible. **Process Management** [is also required as] social learning and negotiation processes cannot be ‘planned’ in advance. However, such human processes can -to a degree- be supported, guided, and improved by facilitators (even if the process and its outcomes remain unpredictable), providing that the emerging dynamics are carefully monitored (Leeuwis 2004:54-55).

Moreover, negotiation is an integral component of extension, along with network building, learning and process management considerations. This model is well grounded in literature as a conceptual, theoretical and practical model for extension practice. However, the prospect of institutionalising such a model of extension, within DNR&M proves very challenging in the wake of the New Extension non-result and subsequent efforts.

As evidenced in research episodes, effective negotiation approaches and tools are increasingly needed in DNR&M’s interactions with regional NRM decision-making, participatory planning and compliance. Currently, the need for **negotiation** capacity is arguably much more popular than the need for **extension** capacity in DNR&M. Therefore, a key entry point to institutionalising extension may be enabled by taking a negotiation pathway rather than an extension pathway. A **negotiation model** that links with extension will have much more appeal within DNR&M than an **extension model** that links with negotiation. Therefore, development of a ‘negotiation’ model is pursued in this intermezzo.

Each episode has shown that instigating discussion, thinking and then dialogue about the role of negotiation in institutional NRM processes is a challenge (particularly concerning efforts to institutionalise extension in DNR&M). Participants mentioned in Chapter 5 found Leeuwis and van Meegeren’s (1999) task list for participatory negotiation processes (also Mort’s model) less accessible than I had hoped, for considering and organising negotiation processes. Further tools are needed. A simple but robust visual and descriptive model which focuses attention on the role of negotiation in multi-stakeholder NRM decision-making processes would be helpful. Further to this, the model needs to reflect principles espoused by a growing contingent of supportive DNR&M staff, extension practitioners and theorists calling for collective and flexible processes in which goals and activities remain continuously adaptive in the face of social change.

**8.1.1 Participatory negotiation: Theoretical inputs**

A number of conceptual and theoretical areas have emerged as key ‘dimensions’ of a participatory negotiation model (or process methodology) for institutionalising extension for NRM. Separate but interconnected areas were coalescing to form the basis of such a model from the preceding theoretical inputs (Chapters 4 and 6), inductive learnings from episodes, many interactions with extension practitioners, academics and agency staff, as well as an
ongoing literature review. Important components include:

1. Triple Loop Negotiation - Process Management
2. Uncertainty
3. Action Science
4. Framing - Reframing
5. Social Learning
6. Enthusiasm
7. Creativity
8. Network building

This conceptual framework has crystallised through perceptive and intuitive reasoning patterns and serendipity, as well as through empirical findings and logical argument. The following sections explore each of these areas on the basis of these arguments through a further theoretical review (in some cases investigating previous concepts more rigorously).

**Triple-Loop-Negotiation: Deeper investigation**

In 2003 I presented the following model of triple-loop-negotiation as a potential driver for facilitating and considering interactive negotiation processes:

Based on the learning theories of Argyris and Schön (1996), where double and triple-loop learning is the basis for transformative processes of change, likewise negotiation can be considered in this way.

1. Single loop – negotiating a substantive issue
2. Double loop – considering the reasons, motives, assumptions and beliefs within negotiations
3. Triple loop – negotiating the negotiation approach and process” (Leach 2003:13).

I subsequently found that a better understanding of ‘double-loop-thinking’ as introduced by Argyris (1981, 1985) and then ‘triple-loop-thinking’ Argyris and Schön (1996) and other writers is required to assess outcomes from research episodes and how triple-loop-negotiation may impact on the institutional (and organisational) positioning of extension. Also emerging from the episodes was the need to explore the notion of thinking creatively and provocatively in order to organise and facilitate negotiation of extension policy differently. Three references seemed to meet these needs and largely influenced this Intermezzo: (1) ‘Values in Action’ by Bob Dick with Tim Dalmau 1999; (2) ‘Why So Stupid? – How the Human Race has Never Really Learned to Think’ by Edward de Bono 2003 and (3) ‘Making Sense of Intractable Environmental Conflicts’ by Roy Lewicki, Barbara Gray and Martin Elliot 2003. Contact with Victor Friedman, an Israeli academic (and student of Argyris) also had a significant influence. Dick and Friedman’s reinterpretations sent me back to study Argyris’ original notions of Action Science. A trip to Wageningen University in 2004 enabled discussion with Barbara Gray on reframing (Lewicki et al. 2003 and Gray 2003-4) and interactions with authors on social learning (Röling 2002, King and Jiggins 2002, Woodhill 1999, 2000).

In the spirit of the triple loop model above, the following sections are presented as optional components of a model that may prove effective in any of the three negotiation loops within an NRM decision-making process. Further discussion on triple-loop-thinking, complete with a more advanced model of triple-loop-negotiation is provided at the end of this chapter.
8.2 Uncertainty

8.2.1 Importance of uncertainty in NRM

Arguably, no matter how great information and knowledge bases are, understanding of environmental, social, and economic reality remains incomplete. We can never expect to know everything needed to make perfect decisions, particularly when the decisions concern predictions of the impacts. While it may not be at issue in every NRM conflict, biological and social uncertainty is a fact-of-life.

In a fragmented lifeworld where there is high uncertainty, no frame of reference or common purpose, there is a recognised need for change of direction (King and Jiggins 2002). A key issue, though, is that in decision-making, stakeholders do not naturally give-up what for them are certainties. In other words, people do not like uncertainty and try to minimise this risk by maintaining the status quo (Aarts and van Woerkum 2003). In NRM conflicts, rather than ignoring risks and uncertainties, they can be clarified and understood through research and inquiry by stakeholders themselves, either within the conflict resolution process itself, or as part of the outcome. The greater the level of social, scientific or technical uncertainty about significant impacts associated with proposed actions, the more future research is warranted, either as part of the conflict resolution process or as part of the agreements in question. Moreover, the greater the uncertainty, the more “adaptive and heuristic” the resulting agreement should be. An agreement should ideally seek to incorporate mechanisms that build in future information and remain protean in the face of compelling new evidence.

With NRM decisions, for every action, law, policy, or program employed to manage a conflict, no matter how well intended, there is a real risk of unintended consequences. These are not merely side effects or trade-offs because new structures, devices, and organisms react with real people in real situations in ways that cannot be foreseen (adapted from Adler et al. Undated). Negotiations need to deal with the following uncertainties:

1. Uncertainties in respect to the negotiation outcome – will it be a satisfactory result (win-win or win-lose)?
2. Uncertainties in the background or motives of other actors – what do they really want?
3. Uncertainties with own capacity to deal with the situation – do I have the skills to handle it? (Aarts and van Woerkum 2003).
4. Uncertainties in which the information or observations are insufficient to bound explanation and interpretation;
5. Uncertainties that arise because information sources themselves are conflicting; and
6. Uncertainties over competing or fragmentary theoretical frameworks.

Aarts (pers.comm.) regards that uncertainty is a key contextual consideration surrounding interactive negotiation processes. It is this very uncertainty that drives stakeholders to interpret an issue, characterise others involved and make assumptions on the decision-making (negotiation) process being used.

8.2.2 Strategies to reduce uncertainties

In negotiations people use various strategies to reduce uncertainties, however, these strategies hinder the processes of changing their position on an issue. Commonly used strategies include: selecting, reconstructing or ignoring information e.g. functional ignorance (better off not knowing much); shifting identities to suit the situation (uncertain characterisations replaced by fixed stereotype); shifting responsibilities (blaming others), or; formalising
communication (written documents, which stifle creativity) (Aarts and van Woerkum 2002). Lewicki et al. (2003) identify that second-nature tactics for avoiding uncertainty result in a tendency to negotiate in adversarial and competitive ways. The ultimate non-result is that positions are maintained.

A number of strategies can help circumvent the issue of uncertainties in negotiation processes. Firstly, it is crucial to recognise and incorporate uncertainty as a key context of negotiations rather than avoid it. Aarts and van Woerkum (2002) make the following recommendations:

1. selecting participants that are uncertainty oriented – e.g. that do not avoid the challenges of uncertainty
2. revalue informal conversation for sustaining formal negotiations – e.g. safe exchanges without records build trust
3. distinguish between long-term visions and short-term goals – balancing regular deliberation with constructive relations
4. invest in mediators/facilitators – that organise, facilitate negotiations, build relations and uncover assumptions
5. include relationships with constituents as part of the negotiation process – this is crucial but is often neglected

A critical challenge for intervening parties (e.g. mediators) is to find effective points of entry for initiating and designing interactions that multi-stakeholder actually confront uncertainty and the current state-of-play. In the next section, Action Science is proposed as a key to opening communicative space and tackling shared NRM dilemmas.

8.3 Challenging the status quo with Action Science

The extensive ‘learning organisations’ body of literature identifies powerful heuristic models for operationalising complex multi-stakeholder NRM negotiations. Considering NRM networks as learning organisations and borrowing some of the basic concepts developed by Chris Argyris and Donald Schön enables more careful distinction between simple and difficult multi-stakeholder negotiations and helps rethink success and failure. This literature also accounts for such phenomena as the preliminary negotiations to negotiate (Garson and Quillen 1993).

Chris Argyris claims that one of the largest hindrances to learning is that most organisations learn through single loop rather than double-loop-learning. He suggests that one of the most important aims of a learning organisation is to develop the capacity to engage in double loop learning, i.e. the capacity to think critically and creatively about program and policy frameworks. Outlined below is an explication of action science, including single, double and then triple loop learning as key to transformational thinking, decision-making and dealing with conflict in institutional (organisational and other) settings.

8.3.1 Action Science

works by Kurt Lewin and John Dewey who designed and executed action experiments, were interested in adding to fundamental knowledge while solving practical problems, and evaluated the outcomes systematically. They were committed to notions of better societies or liberating alternatives and saw that people could become inquiry focused to produce a learning oriented and experimentally minded society (Argyris et al. 1985).

The focus on action science targets knowledge that can be used to produce action, while at the same time contributing to a theory of action. Argyris et al. (1985) maintain that action science can generate knowledge that is useful, valid, descriptive of the world, and informative of how people might change it. The primary aim of action science is not simply to describe and explain the status quo, but to change it (Friedman et al. 2004).

Action science has the following foundations:

- Action Science is about understanding and producing action – Action involves the execution of a solution, production of the invention in the everyday life in which the problem is discovered, and evaluation of the process.
- Action Science recognises that learning occurs when a diagnosis (insights) and inventions are actually produced. The methodology used must result in:
  1. empirically disconfirmable propositions that are organised into a theory;
  2. knowledge that human beings can implement in an action context; and
  3. alternatives to the status quo that both illuminate what exists and inform fundamental change, in light of values freely chosen by social actors (Argyris et al. 1985).
- A focus on producing and testing generalisations in the everyday world leads to an emphasis on intervention because the generalisations are about intervening in order to create and to produce.
- Action Science recognises that thinking and acting, in turn, are based on causal reasoning. The individual is key to (organisational) learning because the thinking and acting of individual practitioners produces learning. This, in turn, means that keys to learning are the reasoning processes that human beings use to design, invent, produce, and evaluate their actions.
- Action Science assumes that supra-individual units such as groups, inter-groups, and organisations are key to enabling learning. Therefore there is a high degree of causal interdependency between the individual and the organisation. A key requirement for facilitating the seamlessness from thought to action is to produce generalisations that contain causal reasoning that is rigorous and that actors can use in everyday life (adapted from Argyris et al. 1985).

Action science calls for basic research and theory building that is intimately related to social intervention. Clients are participants in a process of public reflection that attempts both to comprehend the concrete details of particular cases and to discover and test propositions of a general theory (from Argyris et al. 1985:4).

Argyris et al. claim that action science has an important role in generating liberating alternatives, but assert that this objective cannot be accomplished without challenging the status quo.
In social life, the status quo exists because the norms and rules learned through socialisation have been internalised and are continually reinforced. Human beings learn which skills work within the status quo and which do not work. The more the skills work, the more they influence individuals' sense of competence. Individuals draw on such skills and justify their use by identifying the values embedded in them and adhering to these values. The interdependence among norms, rules, skills, and values creates a pattern called the status quo that becomes so omnipresent as to be taken for granted and to go unchallenged (Argyris et al. 1985:xi).

It is precisely because these patterns are taken for granted, precisely because these skills are automatic, precisely because values are internalised, that the status quo and individuals' personal responsibility for maintaining it cannot be studied without confronting it. This is the role of action science (Argyris et al. 1985).

Designing Action

Human beings, according to Argyris, are designing beings. Their designs advise them how to act if they are to achieve their intentions and act consistently with their governing values. These designs, or theories of action, are the key to understanding human action (Argyris 1995). The ‘theory of action’ approach begins with this conception:

Agents design action to achieve intended consequences, and monitor themselves to learn if their actions are effective. They make sense of their environment by constructing meanings to which they attend, and these constructions in turn guide action. In monitoring the effectiveness of action, they also monitor the suitability of their construction of the environment. As action scientists we are concerned with the effective functioning of interventionists in behavioural systems, which range from individuals to groups, inter-groups, organisations, and communities. We are therefore … concerned with the features of theories of action that promote or inhibit learning in behavioural systems (Argyris et al. 1985:80-81).

These authors see that the design task far exceeds the capabilities of the human mind to deal with complex information-processes. To counter this limitation they suggest that we need to construct a simplified representation of the environment and a manageable set of causal theories that describe how to achieve our intended consequences. Therefore, we learn a repertoire of concepts, schemas, and strategies, and learn programs for drawing from our repertoire to design representations and action for unique situations. Argyris et al. (1985) speak of such design programs as theories of action.

### 8.3.2 Theories of Action

Theories of action are complexly related propositions. The proposition in a theory of action is, "In situation s, to achieve consequence c, do action a" (Argyris and Schön, 1974). It is a theory of control from the perspective of the person who holds the theory and it indicates what they should do to achieve certain results. From an observer's perspective, a theory of action proposes a theory of explanation or prediction (adapted from Argyris et al. 1985). Theories of action can be articulated at different levels of detail, and acknowledges that a full specification of the theories of action held by any individual would be enormously lengthy and complex. Yet in order to understand the most relevant theories of action Argyris recommends that it is necessary to make our often tacit theories-in-use explicit.
What is required are models—simplified representations—chosen to illuminate those features of theories of action most relevant to particular fields of inquiry … The models we create in action science are shaped by our interest in helping human beings to make more informed choices in creating the worlds in which they are embedded. Because we are interested in helping human beings design and implement action, our models should be ‘connectable’ to concrete situations (Argyris et al. 1985:242).

**Action Science tools for building theory-of-action**

Friedman (2004) recommends that in order to work constructively with stakeholders’ (often diverse) reality images, action science concepts and tools include:

1. a distinction between ‘espoused theories’ and ‘theories-in-use’;
2. personal ‘left-hand column cases’ for helping people become aware of the reasoning and emotion behind their actions and inferring their theories-in-use;
3. the ‘ladder of inference’ for helping people test their interpretations, and;
4. the ‘advocacy-inquiry matrix’ for helping people produce Model 2 (see section 8.3.7) strategies in action.

Two particularly salient models from Argyris’ theories of action are ‘espoused theory and theory-in-use’ and ‘single and double-loop learning’. These concepts are crucial for considering how to organise, conduct and improve interactive processes (such as multi-stakeholder negotiations concerning extension). These theories are investigated below.

**8.3.3 Espoused Theory and Theory-in-Use**

Argyris et al. (1985) suggest that there are two kinds of theories of action. Espoused theories are those that an individual claims to follow. Theories-in-use are those that can be inferred from action. It is true that what people do often differs from the theories they espouse. The distinction Argyris et al. (1985) make is not between theory and action but between two different theories of action: those that people espouse, and those that they use. One reason for insisting that what people do is consistent with the theory (in-use) that they hold, even though it may be inconsistent with their espoused theories, is to emphasise that what people do is not accidental. They do not ‘just happen’ to act in a particular way. Rather, their action is designed; and, they are responsible for the design (Argyris et al. 1985).

Theories-in-use are the cognitive maps (that are often tacit) by which human beings design action. Theories-in-use can be made explicit by reflecting on action. But we should note that the act of reflection is itself governed by theories-in-use. Working with action science involves learning to reflect on reflection-in-action, making explicit the theories-in-use that inform it, and learning to design and produce new theories-in-use for reflection and action (Argyris et al. 1985).

Theories-in-use can be modelled using a schematic frame including governing variables, action strategies and consequences, as in Figure 8.1.

![Figure 8.1. Theory-in-Use Model (from Argyris et al. 1985).](image-url)
Governing variables are described as a mix of motives, values, beliefs and feelings. In any interaction a number of governing variables will be involved rather than just the one conceivable outcome or end state of an encounter. Argyris explains that most of these governing variables are ignored or out of range, but when one governing variable (or more) falls away from a satisfactory level, this is the trade-off (or negotiation) zone that an interventionists need to work within:

Any action can have an impact on many governing variables. Agents typically must trade off among governing variables, because actions that raise the value of one may lower the value of another. Action strategies are sequences of moves used by actors in particular situations to satisfy governing variables. Action strategies have intended consequences, which are those that the actor believes will result from the action and will satisfy governing variables. Consequences feed back to action strategies and governing variables. The consequences of action depend on the theories-in-use of recipients as well as those of actors. One's theory-in-use includes a vast store of information about what people are like and how they will respond in various situations. We can argue that consequences are designed, whether they are intended or unintended, when they necessarily follow from the action and the actor's presuppositions about the theories-in-use of recipients (from Argyris et al. 1985:242).

This provides a useful means of conceptualising the agendas that different NRM parties bring to a decision-making process and how they balance their values, approach and actions based on what (they say) they believe in. The concept of single and double-loop learning assists NRM stakeholders consider the level at which theories-in-use are exchanged.

8.3.4 Single-loop and double-loop learning
Argyris and Schön (1978) suggest that learning involves the detection and correction of error. Errors viewed in this sense may be either mismatches with aspects of the environment, such as customer preferences or regulatory agencies, or mismatches with internal organisational standards (Robinson 2001). Where something goes wrong, a starting point for many people is to look for another strategy that will address and work within the governing variables. Given or chosen goals, values, plans and rules are operationalised rather than questioned. According to Argyris and Schön (1974), this is single-loop learning. New action strategies used in the service of the same governing variables, mostly lead to a change in action but not in the governing variables (Argyris et al. 1985).

In this model, Argyris positions the consequences of a person’s action strategy against their initial aims as a means of evaluating the outcome and deciding on the effectiveness of the theory-in-action. If the result(s) are as the person intends, then the match between intention and outcome confirms their theory-in-use. If, however, there is a mismatch or an error (of judgement) and the consequences are unintended or counter productive, the theory-in-use comes into question.

The typical first response to a mismatch is to search for an alternate action strategy that will satisfy the same governing variables. Argyris’ example is particularly salient:

For example, if the agent wants to suppress conflict (governing variable) and to this end avoids saying anything that might be controversial (action strategy), but others raise threatening issues anyway (mismatch), the agent may try the strategy of talking volubly about issues on which everyone is likely to agree (from Argyris et al. 1985:86).
An alternative response is to question the governing variables themselves and subject them to critical scrutiny. Argyris and Schön (1978) describe this as double-loop learning. Such learning may then lead to an alteration in the governing variables and, thus, a shift in the way in which strategies and consequences are framed:

For example, rather than suppress conflict, the agent might choose to emphasise open inquiry. The associated action strategy might be to initiate discussion of conflictual issues (from Argyris et al. 1985:86).

Argyris suggests that the deliberative process appropriate to double-loop learning is concerned not with choosing among competing chains of ‘means-ends reasoning’ within a given set of standards, but with choosing among competing sets of ‘frames’ or ‘paradigms’.

![Figure 8.2: Single and Double Loop Learning (adapted from Argyris et al. 1985).](image)

When the error detected and corrected permits the organisation to carry on its present policies or achieve its present objectives, then that error-and-correction process is single-loop learning. Single-loop learning is like a thermostat that learns when it is too hot or too cold and turns the heat on or off. The thermostat can perform this task because it can receive information (the temperature of the room) and take corrective action. Double-loop learning occurs when error is detected and corrected in ways that involve the modification of an organisation’s underlying norms, policies and objectives (Argyris and Schön 1978:2–3).

When goals, values, frameworks and, to a significant extent, strategies are taken for granted, single-loop learning prevails. The emphasis is on ‘techniques and making techniques more efficient’. Any reflection is directed toward making the strategy more effective. Double-loop learning, in contrast, ‘involves questioning the role of the framing and learning systems which underlie actual goals and strategies’ (Usher et al. 1997). Finger and Asún (2000) also suggest that this provides two contributions to pragmatic learning theory.

1. ‘Theory in action’ provides Kolb’s presentation of experiential learning with greater coherence and structure. ‘Abstract conceptualisation’ now becomes more tangible, can be analysed and further developed
2. ‘Theory in action’ makes it no longer necessary to go through the entire learning circle in order to develop the theory further. It is sufficient to readjust the theory through double-loop learning. Dewey’s, Lewin’s or Kolb’s learning cycle, based on making a mistake and reflecting upon it, can now be evolved to learning by simply reflecting critically upon the theory-in-action (following Finger and Asún 2000).

Argyris suggests that single and double-loop learning exist on a continuum, with values and strategies positioned at different levels for different actions. Learning that is double loop with
respect to particular actions may appear single loop with respect to more encompassing governing variables.

For example, both the effort to suppress conflict and the effort to discuss conflict openly might be in the interests of "getting others to do what I think best." Double-loop learning, on this account, might involve designing ways to jointly decide whether to discuss conflict. Another way of thinking of this nested quality is in terms of second-order standards by which alternative frames or paradigms may be evaluated (Argyris et al. 1985:86).

It is in this example that Argyris endeavours to take the learning to a higher loop, however the action strategy is still positioned in the lap of an individual rather that the collective. In negotiation terms he acknowledges that the interactions in second-loop-learning are positional and distributive, and his idea of designing ways to collectively discuss conflict remains in this domain. It is not until the collective is openly considering and trading-off governing variables that a further loop is broached. In a later edition Argyris and Schön (1996) mention a third dimension or level of learning, 'triple-loop-learning' in which they recommend conscious questioning of the current methods, techniques and forms of feedback in which the learning process is organised. They also describe this third loop as 'learning about learning'. It is in this domain that the 'negotiation of or about negotiation' also takes place, albeit with a collective rather than individual slant.

In the following section a book by Dick and Dalmau (1999), "Values in action", is investigated closely. At this point in my research I felt a great sense of euphoria as their book illumined with much greater clarity the works and principles of action science by Chris Argyris. In addition to Argyris, the works of Donald Schön are also included in their book. In earlier studies and research projects prior to and during this study, I had always held a pre-eminent view of the potential of 'double-loop' learning and of action science with its promise of deeply considering governing values and learning about learning. To my chagrin however, I found the texts challenging to understand and managed only to reap conceptual pickings from what I perceived to be a much richer theory base than almost any other in this field. Dick and Dalmau (1999) actually mention their dismay at how the action science concepts have been poorly received by academia, business and other sectors and the limited influence they have had (over a twenty year period). I have a sneaking suspicion that conceptual accessibility may have been a key limitation here.

8.3.5 Argyris and Schön meet Johari

Bob Dick (with Tim Dalmau) has re-interpreted the works of Argyris and Schön. Dick and Dalmau (1999) explain that along with Freud and Jung, Argyris and Schön presume that a great part of our behaviour is driven by forces outside our awareness. Our inner experiences are often tacit. The Johari window is used by Dick and Dalmau (1999) to illustrate the principles within Argyris and Schön’s writings where they are dealing with the two right hand quadrants:
Central to the propositions of Argyris and Schön is the assumption that the forces in these two right boxes are often in conflict with a person’s conscious reasoning processes. Following this assumption, Dick and Dalmau (1999) explain that Action Science works toward reducing the dissonance, discomfort or conflict from a lack of consistency between our ‘espoused’ attitudes (of an individual or institution) and the ‘action’ or behaviour exhibited.

Argyris and Schön’s principal aim is to increase the congruence between behaviour and espoused values, and thereby reduce the dissonance that occurs when we actually become aware of these inconsistencies. Dick and Dalmau (1999) claim that awareness of this dissonance can have a number of effects including:
1. Denial – rejecting the validity of the data showing the inconsistency
2. Compartmentalisation – arguing that the data fits another situation
3. Reinterpretation – of the data into existing frame of beliefs and values
4. Behavioural change – data is accepted, as is the ‘choice of change’
5. Attitude change – cognitive change that modifies values and attitudes to be more consistent with behaviour

### 8.3.6 Relationships and information
Dick and Dalmau (1999) reflect that some relationships are effective and satisfying where occasional problems are dealt with easily and both cooperate to remove dissatisfaction by identifying and remedying its source. However other relationships have a different experience where problems arise without being dealt with effectively. An information chain highlights the importance of Argyris and Schön’s work in dealing with the relationships where problems and conflicts abound:

![Figure 8.4: Information chains of two parties (at either end of figure) showing the separation of information, interpretation and perception (Dick and Dalmau 1999:18).](image)

The information chain can be simple for role-based disagreements (i.e. dealing with actions and material outcomes with little regard to the other links), to being quite complicated in complex conflicts (i.e. involving two-way suspicions concerning motives and different perceptions of the other parties links in the chain). The key feature of the information chain is that some information is available to one person and some to the other, but typically no
element is available to both. Therefore different perceptions develop and are maintained, and furthermore, social rules against expressing some of this information keeps it hidden.

On the basis of research and observation Dick and Dalmau (1999) suggest that there is often considerable disagreement in difficult relationships, between each party’s perceptions of what their action had been, versus the other party’s interpretation of that same action. Dick and Dalmau (1999) provide that people are not good observers of their own behaviour, and they tend to judge what they actually did by their intentions. On top of this, they judge other people’s behaviour by its outcomes.

Dick and Dalmau (1999) link the information chain with the Argyris and Schön theory-of-action:

![Diagram of information chain and theory-of-action](image)

Figure 8.5: Information chain (Dick and Dalmau 1999:20) or theory-of-action (Argyris 1985)

Drawing from Figure 8.5, Dick and Dalmau (1999) amplify Argyris and Schön and maintain that everyone has a strong propensity to hold inconsistent thoughts and actions (espoused theories differ from theories in use) and we are all often less than effective in our behaviours.

- There is a gap between what we think we believe and the values implied by our behaviour;
- We are blind to this gap;
- Though others may perceive it, they are reluctant to admit that they have, let alone bring it to our attention;
- If they do, we are likely to react most defensively.

For good measure, these taboos against being open about beliefs and feelings are then reinforced by a taboo against revealing the taboo. Argyris (1985) calls it the undiscussability of the undiscussable – the cover-up of the cover-up.

This same inconsistency between espoused and actual values and strategies lies at the core of many difficulties in relationships between individuals and groups. In addition, people tend to ascribe incorrect governing values to others’ behaviour. This is as true of individuals as it is of groups or, need we say it, nations (Dick and Dalmau 1999:22-23)

Following Argyris and Schön, a core assumption is that people seldom reveal their assumptions about each other, especially about motives. When they then act on their assumptions, their motives are often misunderstood. The common result is a self-fulfilling
The following figure shows a detailed presentation of the mutual self-fulfilling prophecy that Dick and Dalmau (1999) describe:

A observes B’s actions  ←  B acts out these feelings
↓
And their material consequences for A, particularly what A is obliged to do or prevented from doing
↓
If the actions or their consequences are not what A expected, A forms assumptions about B’s motives
↓
If these assumed motives have implications for A or her relationship with B, A becomes threatened, perhaps emotional
↓
Taking all of this into account, A develops an intention to act in a certain way
↓
A acts out her feelings  →  B observes A’s actions

Figure 8.6: The information chain as a self-fulfilling cycle (Dick and Dalmau 1999:26)

Dick and Dalmau (1999) present a range of tools that apply Argyris and Schön’s work, with two aims:
1. To enable people to make contact with their assumptions about each other (the often incorrectly ascribed governing values, or assumed drivers of others’ behaviour).
2. To enable people to exchange this information in a way that can be understood, and challenged, and possibly corrected.

8.3.7 Argyris and Schön and interactive conflict models
Dick and Dalmau (1999) summarise Argyris and Schön’s key messages by suggesting ‘certain beliefs tend to cluster together’. For example, those people who believe in the
avoidance of losing, or indeed the pursuit of winning, tend also to believe in minimising emotionality and being narrowly rational. Two clusters of belief have been identified by Argyris and Schön called Model 1 and Model 2. Model 1 is characterised as adversarial, competitive, and narrowly rational, with Model 2 being more consensual, more open to change, and providing more opportunity and amenability for choice.

Dick and Dalmau (1999) provide that Argyris and Schön’s two models have differing consequences for people, for systems (of interaction) and for learning. Model 1 allows only single-loop learning and promotes learning only within these limits. In interactions certain beliefs are maintained without reason, where they are unchallenged and are indeed unchallengeable even though people do not comprehend why this is so. By contrast to this, Model 2 promotes double-loop learning (as above) in which overall values are open to challenge.

Dick and Dalmau (1999) maintain that the prevailing culture is Model 1, even though some people advocate (or espouse) Model 2 values. Their behaviour is frequently more consistent with Model 1 values, implying a Model 1 theory-in-use. The large tension that Dick and Dalmau (1999) find is that when people become aware of the mismatch, it is often difficult for them to respond to this because the prevailing culture is Model 1, including many of the social systems and organisations within it. And most importantly:

Anyone trying to inform them of the mismatch is likely to use Model 1 behaviour to do so ... [People’s] beliefs and feelings are seldom expressed. Often neither are the outcomes or intentions. The people unwittingly deny each other information – information that would enable them to develop a better understanding of self and other, and a more constructive relationship (Dick and Dalmau 1999:49-50).

Dick and Dalmau (1999) find that most people prefer to ‘practice what they preach’. However, they experience negative feelings when they become aware of a mismatch between these two. In interactions with other people, they unfortunately also experience negative feelings when another person violates the social rules of the culture or social system. Consequently, to avoid negative feelings most social systems encourage Model 1 values.

Interventions aiming to create change in this need to meet the following conditions:

- To isolate the people from the prevailing single-loop learning and taboos of the wider culture, a supportive climate must be created
- To enable the dissonance-arousing mismatches between preaching and practice to become apparent, specific information about behaviour must me provided
- To generate this information, their informants must know which information is required
- To escape the conventional taboos, provision of this information must be legitimised in some way
- The process by which the information is given will work better if the informant does so in a Model 2 way
- The process must also encourage the receiver to understand what is said (Dick and Dalmau 1999:50).

Argyris and Schön find that double-loop learning will be more likely to occur if people in an interaction engage in mutual pursuit of honest information and understanding. For this
best to occur, the process can simulate Model 2 conditions, allowing those involved (the opponents) to ‘discover’ Model 2 theories-in-use for themselves (Dick and Dalmau 1999).

In the following, ideas on Action Science from Victor Friedman¹⁰⁰ (a student of Argyris) further add to this theoretical model.

8.3.8 Applying Action Science thinking: Negotiating reality
Berthoin Antal and Friedman (2003) speak of negotiating reality in today’s multicultural and increasingly international decision-making environment. While their writings focus action science toward different values, behavioural norms, and ways of perceiving reality in cross-cultural interactions, it is arguable that the same principles apply to the different ‘cultures’ of NRM stakeholders in Queensland (and Australia).

Friedman and other authors support that exploring our own (or someone else’s) theory of action does not come naturally. People find it difficult to question themselves about how they interpret a situation, what goals are important and which strategies they are using. This is particularly difficult in the midst of an interaction. A key reason for the difficulty is that asking such questions means becoming consciously aware of what one is thinking and doing.

Argyris maintains that being unaware is functional because it enables people to act quickly and effectively in a wide variety of frequently faced situations (Argyris 1982; Argyris and Schön 1974). In multi-stakeholder situations however, particularly where different ‘cultures’ are involved, being unaware can become dysfunctional, locking people into routine ‘theories of action’, even when they lead to misunderstandings and become counterproductive.

A critical skill when negotiating reality is knowing when and how to interrupt one’s automatic functioning and to bring individual and aggregate theories of action into awareness (Berthoin Antal and Friedman 2003:19).

Developing hypotheses - Inquiry into espoused theories vs theories-in-use
Negotiating reality is often a tricky process, but unexpected responses provide cues for us that our (or others’) reality image may be incomplete, mistaken, or misinterpreting something in an important way. When different reality images exist, this signals the need to test our own view of the situation. When negotiating reality, a successful strategy is to consider our reality images as hypotheses rather than facts. Treating our reality images as hypotheses allows us to be open to testing them against the available information and against alternative hypotheses. Testing involves asking questions such as:

- What led me to make those interpretations?
- How closely connected is my interpretation to the directly observable data?
- What led me to select those data?
- What might I have ignored or missed?
- To what extent are alternative hypotheses more closely connected to the data or more logical? (Berthoin Antal and Friedman 2003)

¹⁰⁰ Friedman conducted a workshop earlier in 2004 in Brisbane titled “Conflict and Learning: An Action Science Approach” (Bob Dick was also a participant). Victor is a self-professed student, supporter and advocate of action science and has prime opportunities in Israel to apply Argyris’ theories in multi-party and intercultural decision-making processes. His workshop and writings are a significant support for aiding understanding and application of action science to theory development for negotiation and institutionalising NRM extension.
In a group of people, an individual’s theories may result in them using very different action strategies to achieve their goals than others in the group, even when all agree on their understanding of a situation. Negotiating reality therefore requires us to critically inquire into these strategies and explore the intended and unintended outcomes that are likely to result.

A very valuable outcome of critically inquiring into strategies and behaviours is that people … may discover that they were blind to their actual strategies and to the negative consequences of their theories-in-use (Berthoin Antal and Friedman 2003:23).

Berthoin Antal and Friedman (2003) observe that intercultural interactions tend to involve two types of gaps: the gap between strategy and outcome, and; the gap between espoused theories and theories-in-use. These authors provide that the first gap is relatively straightforward, but the second gap is a more subtle experience where strategies effective for achieving goals in one context may have unintended effects in a different cultural context. They suggest that that individuals often intend (or espouse) that they will pursue a strategy of open-minded appreciation of cultural difference. These same individuals, however, inadvertently slip into becoming judgmental and seeking to impose their reality image on the other person(s). Only by taking inquiry deeper, can individuals discover what triggered them to deviate from their espoused strategy and how they could become more effective when faced by similar triggers in future (Berthoin Antal and Friedman 2003).

**Balancing advocacy and inquiry**

Negotiating reality, according to Berthoin Antal and Friedman (2003), is carrying out an action strategy that combines high inquiry with high advocacy for exploring and testing theories of action and reality images collaboratively with the other people involved. Advocacy means standing up for what you think and desire and clearly expressing your position. Drawing from Dewey (1938) and Argyris and Schön (1996), inquiry means exploring and questioning the reasoning of others as well as your own reasoning, and often requires a conscious effort to suspend judgment, experience doubt, and accept a degree of uncertainty until a new understanding is achieved (Berthoin Antal and Friedman 2003).

In multi-party (intercultural) interactions, an inquiry approach enables participants to explore and understand each other’s intentions and behaviours in light of their different origins.

When high advocacy is combined with high inquiry people state clearly what they think/want and explain the reasoning behind their view. At the same time they strive to understand the reasoning of others and invite others to question their own reasoning. This strategy involves an openness to seeing the reason in other ways of thinking and to discovering inconsistencies or gaps in one’s own reasoning (Berthoin Antal and Friedman 2003:22).

The advocacy-inquiry model encompasses four possible combinations of these two behaviours (Figure 8.7). The high advocacy/low inquiry involves pressing your own point of view without exploring the perspectives of others, and is probably the most common form of interaction among professional people. This behaviour is reinforced by many training programs (Argyris 1993) and is based on a goal definition of seeking to win. This maps to the adversarial quarter of the negotiation matrix (see Chapter 6 Figure 6.4). Likewise the three other combinations also logically map to this same negotiation matrix.
### High Advocacy-Low Inquiry: Competition Distributive *Fight*

- Expresses strong opinions.
- Clear and unambiguous.
- Ignores or hides information that does not support one’s position.
- Does not listen or listens only to refute.
- Overpowers defensiveness.

### High Advocacy-High Inquiry: Collaboration Integrative

- Treats opinions like ‘hypotheses’.
- Expresses clear opinions and provides the reasoning behind them.
- Invites questions into one’s own reasoning.
- Asks questions and listens in order to understand the reasoning of others.
- Seeks data that might disconfirm one’s own opinion.
- Appreciates defensiveness as an opportunity for learning.

### Low Advocacy-Low Inquiry: Avoidance *Flight*

- Asks leading questions.
- Gives hints and double-messages.
- Camouflages threatening information.
- Ignores or hides information that does not support one’s position.
- Attempts to avoid raising defensiveness.

### Low Advocacy-High Inquiry: Accommodation

- Asks questions.
- Listens and tries to understand.
- Refrains from judging or expressing opinions.
- Attempts to avoid raising defensiveness.

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**Figure 8.7: Linking Advocacy and Inquiry with Negotiation Strategies** (Combining Berthoin Antal and Friedman 2003:23 with Lewicki 2001:36).

**High advocacy – High inquiry**

Conflict and psychological threat trigger in most people strategies that are either high advocacy/low inquiry, high inquiry/low advocacy, or low on both behaviours. These strategies are all triggered by defensiveness. The most constructive combination is high advocacy/high inquiry, but it is also the most difficult strategy for people to pursue. It requires high attention for actively seeking to understand alternative views and logics while also expressing one’s own perspective and logic (Berthoin Antal and Friedman 2003). A problematic issue is that people find it especially difficult to engage in high advocacy/high inquiry in the very situations when they need to learn the most from each other. Action science research has also shown that the high advocacy/high inquiry strategy is very rare when people find themselves in situations of conflict and psychological threat (Argyris 1982; Friedman 2000; Rothman and Friedman 2001).

In multi-party (intercultural) interactions Berthoin Antal and Friedman (2003) find that high advocacy/high inquiry interactions require a conscious effort for most to ‘unlearn’ behaviours explicitly or implicitly socialised or taught in many organisations and training programs. Individuals need support in learning and unlearning, but with support, can make progress in testing new behaviours oriented to achieving the goals of maximising valid information, free and informed choice, and internal commitment (Berthoin Antal and Friedman 2003). Interestingly, they observe that when one party in an interaction consistently uses a high advocacy/high inquiry strategy, others are likely to become more open to surfacing and questioning their own reasoning. Multi-party (intercultural) interactions can thereby become virtuous cycles in which trust, understanding, flexibility, and experimentation increase over time (Berthoin Antal and Friedman 2003).
Likewise, Berthoin Antal and Friedman (2003) suggest that an antidote to defensiveness that normally arises in conflict is a high advocacy/high inquiry strategy, which appreciates defensiveness. Taking a high-advocacy/high-inquiry approach:

views another person’s defensiveness as an opportunity for learning rather than as a threat. After all, the other person might be defensive for a good reason; perhaps she is right. When regarded in this way, defensiveness serves as a stimulus to inquiry rather than as something to overcome or avoid. Engaging defensiveness by combining advocacy with inquiry enables people to discover their own errors and communicates to others that their point of view is taken seriously (Berthoin Antal and Friedman 2003:25).

Goal inquiry and conflict in multi-stakeholder interactions
Most approaches to conflict resolution and intercultural competence treat interests, goals, and values as givens. Negotiating reality in an interaction includes critically inquiring into people’s interests, goals, and values. Goal inquiry asks participants to clearly articulate and question what they want to achieve and why. It helps get at underlying values and issues of identity, revealing sources of conflict as well as common needs and dilemmas. Goal inquiry is sometimes essential for finding ways to move forward when people bring very different repertoires, or frames, to dealing with a problem. Goal inquiry can also be called ‘the identity framing’ of issues, to deal with intractable conflict (Berthoin Antal and Friedman 2003).

In accordance with the identity frame of Lewicki et al. (2003) (below), Rothman (1997) claims that most long-term conflicts are really about the articulation and confrontation of individual and collective identities. While these conflicts may be expressed and negotiated in terms of competing resources or interests, they really involve people's individual and collective purposes, sense of meaning, and definitions of self. Burton (1990) advocates that with the identity frame, conflicts are rooted in threats to or the frustration of deep human needs such as dignity, recognition, safety, control, purpose, and efficacy. Berthoin Antal and Friedman (2003) recognise that the desired outcome of a negotiation is not just settlement, but also growth, moral development, and fundamental changes in perceptions of reality or truth. Also they believe that framing conflict in terms of identity requires interventions that clarify needs and values, and what causes stakeholders satisfaction and dissatisfaction.

8.4 Framing: Dealing with intractability
Lewicki et al. (2003) use the term ‘intractable conflict’ for situations where conflicts persist indefinitely over long periods of time, cannot be resolved through consensus building efforts or by administrative, legal or political solutions, and are characterised by considerable intensity. While these authors are concerned with long-standing NRM conflicts that are endemic within community with no simple resolution in sight, or with more volatile yet non-resolvable multiparty clashes, intractable conflict can also be used to describe the extension dilemma in DNR&M (and beyond). For many DNR&M staff and other stakeholders, extension is an endemic issue that is not easily resolved, and for a smaller number (including myself) the issue flares up periodically, interactions take place, and yet nothing is resolved (as per the Lazy Eight change model – Chapter 6). Earlier in this thesis there has been investigation into paradigms and ways that individuals construct their reality. Following Lewicki et al. (2003) and Gray (2003 2004), it is important to consider how the different stakeholders “make sense” of the persistent differences they have with other stakeholders. Lewicki et al. (2003) refer to these interpretations as frames.
8.4.1 A frame-analysis model: Investigating whole story, identity, characterisation and conflict management

Lewicki et al. (2003) explain that frame-analysis is a useful means of explaining the social constructions and interpretations of different actors dealing with a point of difference (dispute). The word *frame*\(^{101}\) is a heuristic for how to categorises and organise data into meaningful chunks of information. When we frame a conflict, we develop interpretations of what the conflict is about, why it is occurring, the motivations behind parties involved, and how the conflict should be resolved. When two or more stakeholders define or ‘make sense of a situation’ in the same way, they are socially constructing it. A primary aspect of negotiation (as with joint learning) involves testing to see if one’s interpretations are compatible with those of other parties. Moreover, framing can be seen to play an important function in the creation, evolution and continuation of environmental (NRM)\(^{102}\) conflicts. Frames are used to: define issues; shape what action should be taken and by whom; protect the self; justify a position taken on an issue, and; mobilise stakeholders to take or refrain from action on issues (Lewicki et al. 2003). Frame-analysis can be used to examine differences in individual or collective interpretations of a conflict. This frame analysis may be conducted by a facilitator themselves, or amongst key parties in the dispute.

Lewicki et al. (2003) propose that ‘identity’, ‘characterisation’ and ‘conflict management’ frames are key for understanding how the dynamics of an NRM conflict (or a negotiation process) can be understood.

**Identity Frame** – is recognised by how individual stakeholders respond to the question: ‘Who am I?’ These people generally identify their ‘self image’ with recognised characteristics of certain social groups, e.g. a grazer, an outback town resident, a government planning officer, a community group member, or a compliance officer. Identities are usually constructed through social comparison with other groups, frequently to rival the identity of other groups. In such ways, group identities crystallise and intergroup oppositions develop. Identity is important to conflict because almost inevitably, when under threat stakeholders are challenged to question the beliefs and values that underpin who they believe that they actually are. This often results in strong defensiveness, blame and escalating conflict. Note: Important for this research is identification by Lewicki et al. (2003) of ‘institutional’ identity frames (possessed by staff of a particular agency).

**Characterisation Frame** – is the mirror of the identity frame in how an individual understands other stakeholders to be, or answering the question: ‘Who are they?’ This frame commonly arises through attributions of blaming externalities rather than the self.

**Conflict Management Frame** – deals with conflicting stakeholders’ preferences for how the conflict should be planned and/or conducted. Stakeholders use different strategies to resolve the issue depending on this frame. If stakeholders prefer divergent conflict management frames, moves to negotiate a solution will be problematic. Note, as covered in Chapter 6, this could be adversarial, collaborative, avoidance, accommodating or

\(^{101}\) Noelle Aarts introduced me to the concept of framing and re-framing, as a means of conceptualising and further working with intractable issues within the NRM arena, during my visit to Wageningen University September 2003. I acquired the book she recommended and subsequently met with the author Barbara Gray on my return visit to Wageningen 2004. This had a significant impact on my research journey.

\(^{102}\) Lewicki et al. (2003) use the term environmental, which is arguably interchangeable with natural resource management, or NRM
compromising. Conflict management models include: consensus versus authority decision via consultation; authority decision based on expertise; adjudication; political appeal; market economy; struggle, sabotage or violence, or “common sense approaches” (adapted from Lewicki et al. 2003).

Additionally other frames aid this understanding in NRM conflicts.

**Whole Story Frame** – a summary of what a stakeholder (one party) believed the conflict they were engaged in was about. The essence of the experience is captured in a succinct format that informs or guides a stakeholder’s behaviour in an interaction.

**Social Control Frame** – identify the views individual stakeholders have about the process of making decisions about social issues. Two dimensions are represented in Figure 8.8.

<table>
<thead>
<tr>
<th>High Ownership</th>
<th>Interdependence</th>
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<tbody>
<tr>
<td>High</td>
<td>Individualist</td>
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<tr>
<td>Low</td>
<td>Fatalist</td>
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<td>High</td>
<td>Egalitarian</td>
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<tr>
<td>Low</td>
<td>Hierarchist</td>
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</tbody>
</table>

Figure 8.8: Social Control Frames (Lewicki et al. 2003:28)

**Power Frame** – identifies how individual stakeholders identify with power. Lewicki et al. (2003) identify power frame categories: authority/positional; resources; expertise; personal; coalition/relational; sympathy/vulnerability; force/threat; moral/ righteous, and; voice.

**Risk Frame** – identifies how stakeholders regard the type and level of risk with the NRM issue.

**Gain vs Loss Frame** – identifies how stakeholders feel about actions resulting in a loss or gain either for themselves or for others.

**Issue Frame** – identifies the various ways in which different stakeholders interpret issues

Lewicki et al. (2003) found through research that efforts to improve understanding of the frames held by different parties in a dispute (or negotiation) can lead to more constructive interactions among disputants, to frame enlargement and sometimes even to re-framing. They identify that re-framing can move conflicts toward resolution. Frames can be altered in time through interventions and intentional actions as well as through the changes in the systemic context of the conflict. If parties can recognise their different frames of reference with regard to the problem at stake, and, building on this recognition, develop new common frames for both problems and solutions, they have the potential to reach a collaborative solution (Gray 2003, 2004). In order to achieve particular social ends the results of frame-analysis may be presented to other parties with the aim of influencing them to adopt alternative interpretations of a conflict (see Craps 2003, Verbij 2008).

Considering the limitations of many methodologies and approaches for dealing with power (see Chapter 6) analysis of power frames may need to given more importance with interactive
NRM processes. Arguably there is value in linking the concept of framing with the ‘network building-learning-negotiation’ imperatives suggested by Leeuwis (2004), and considering further frames, beyond those introduced by Lewicki et al. (2003).

The considerable number of different stakeholders that focus attention on similar or overlapping NRM issues results in a range of approaches to identifying and relating to these issues. Building on Lewicki et al. (2003) and Gray (2003), Dewulf et al. (2004) maintain that different social groups in multi-stakeholder NRM issues lay different claims on the issues in questions, including economic, military, ecological, recreational, legal, cultural and religious claims. They identify that these different stakeholders:

- tend to acknowledge and highlight different aspects of reality as problems or opportunities, and thus requiring intervention. Specific experiences and positions in social networks make different actors look to a problem from different points of view, resulting in a situation where different perspectives are at play simultaneously (Dewulf et al. 2004:178).

In line with the whole-story frame Lewicki et al. (2003) identify above, issue framing (Putnam and Holmer 1992) targets the various ways in which different stakeholders interpret issues. Issue framing promotes that each party selects the relevant aspects, connects them into a sensible whole, and delineates boundaries. Dewulf et al. (2003) report that encounters with these different issue frames makes a self-evident delineation and definition of issues highly unlikely, with different stakeholders understanding the situation differently, prioritising different problems, including or excluding different aspects, and favouring different kinds of solutions. When stakeholders’ frames about the issues, the process of their interaction, and about each other are vastly different, collaboration to find an agreeable solution becomes exceedingly difficult (Gray 2004).

Moreover, as illustrated by a number of authors (in Dewulf et al.2004), frames (including issue frames) arise in a dynamic interaction setting amongst stakeholders where meanings for what they are [individually] experiencing in the moment are reinterpreted by these same individuals and those they are interacting with. Through conversation, frames are either accepted or rejected by participants through respectively maintaining or altering their frame in responses. Moreover, in the process of communication, Dewulf et al. (2004) observe that people talk differently about certain issues depending on whom they are talking to, and frames can be reinterpreted and used to meet the interactional needs of respective stakeholders. They use different language. Following is a consideration of NRM language and memes as foundational components that NRM stakeholders use to frame their reality.

### 8.4.2 Frame building blocks: Language and Memes

It seems that in most organisations, such as NR&M, some stakeholders are very crafty at manoeuvring around planning and negotiation processes to progress their specific agendas, often using particular terms or language in common with influential stakeholders. In some cases there are even contest within and between separate intentionally inclusive processes (such as with the New Extension and Capacity Building Strategies). It is well recognised, though, that organisational conflict has been quite an intractable issue within social institutions throughout our past (Briassoulis 2004, Robinson 2001, Argyris and Schön 1996), and some claim that this craftiness has become firmly entrenched through over ten thousand years of bureaucracy (Dick pers.comm). This, of course, extends to NR&M as a large public institution. Given the fact that negotiation capacities within the research episodes in this thesis appear to attribute some predominance to adversarial (distributive) forms, often with different
language used to defend sides of the argument, a methodology capable of inquiring into this past enculturation of language and approaches to dealing with conflict would be helpful. This thinking is mirrored by Stasi (2003) who asks:

But how do institutional stakeholders [in NR&M] move beyond conflict resolution (which tends to be more about improving the communicative process), to facilitating the ‘deconstruction’ of various forms of interaction, which is an essential step to engaging in effective discourse? (Stasi 2003:5).

Deliberative approaches to working with conflict focus on the ways in which multiple stakeholder groups conceive problems and agendas and on the way values and value systems actively develop (Dryzek 2000). The ‘world view’ of different stakeholders is important to consider for developing a shared way of apprehending the world or an issue. ‘How people view the world is a unique combination of their previous experience, their environment and the effect that people have on them. Moreover, ‘local knowledge’ is grounded in lived experience and constructed from individual’s stories, the collective memory of events and in the myths and metaphors in culture and language (Brown 2001).

Language
Language is vital and is not simply a medium for expression but reveals the ways stakeholders make sense of their worlds and their priorities therein (Vigar and Healy 2002). A review on resolving NRM issues through Landcare in Australia, points out the need for stakeholders to find common languages, shared by all the various players, in order to make communication effective and resolve the issues at hand (Brown 1996). Similarly, Dewulf et al. (2004) identify, language is the primary instrument for social interaction around NRM negotiations, and also highlight that the way issues are framed necessarily takes the focus to the use of language (Dewulf et al. 2004).

In social systems we can regard ourselves as observers of the system; we engage in conversations through the use of a shared language. Maturana and Verden-Zoller (1993) claim that we do not just use language, we are immersed in it. In our use of language we construct our own reality and we humans have evolved our particular manner of living largely through reliance on the use of language as our principal relational dynamic. It is this ability to share language that leads to shared mind-sets, values and beliefs (Gill Undated). We are always explaining and reporting our experience and our ever-changing present reality consists of how we describe our experiences to ourselves and to one another. This is quite different from regarding language as a means of communicating or transmitting information using symbols or representations of an independent reality (Maturana and Verden-Zoller 1993). Therefore, when intervening in a dispute, there is a need to inquire into the language patterns or discourse used by adversaries, with a view to mapping the conflict, through a number of mechanisms, including: identifying the value judgements implicit in actions; identifying mind-sets, values, beliefs and inferring norms and motives; unearthing and understanding something of the underlying assumptions made (which are often not expressed explicitly) and ethical positions taken that underpin a particular perspective; revealing the embedded nature of struggles between competing ideologies, and; exposing the covert practices that mask power relationships (following Stasi 2003). This may be done through frame analysis, either by the facilitator, or collectively amongst disputants.

One goal is to practice two-way communication that responds attentively to each stakeholder’s perspective and language and targets potential points of affiliation among
diverse groups. Another goal becomes **showing how** this more inclusive interaction process enables stakeholders to move beyond factionalism (or semi-closed communication circles), promotes convergence across perspectives (Peterson and Horton 1995). Also, we can use conflicting perspectives and languages of stakeholders to encourage a policy environment of creative tension to challenge and strengthen interim policy outcomes (Butteris et al. 2001).

**Memes**

Memes are building blocks that people can use when framing their reality, e.g. ‘extension is an outdated concept’. A number of studies claim that the expectation that policies designed to change attitudes of natural resource managers will directly lead to changed [responsible] behaviour, are too simplistic (Barr and Cary 2000, Woodhill 1999 2002, National Land and Water Resource Audit 2002). A good example is where government programs have targeted the promotion of a ‘stewardship ethic’ or ‘landcare’ with the aim of changing management practices to account more fully for our obligations to future generations. Barr and Cary (2000), however, hazard against reliance on an NRM stewardship ethic claiming that the links between environmental beliefs and environmental behaviour are tenuous at best and cannot be relied upon as a sufficient condition to motivate change in NRM practices.

Following O’Neill (2001), a key issue with the approaches aiming to influence attitudes as a vehicle for changing behaviour is that memes such as ‘Landcare’ or ‘extension’ are interpreted differently by various stakeholders. As O’Neill claims:

a landholder will express care for the land through evidence of good husbandry, not through the number of wild flowers it contains. What counts as ‘care’ for the farmer will not be what counts as ‘care’ for the conservation agency (O’Neill 2001:704).

Agencies often promote a concept with limited appreciation for how targeted stakeholders understand it, and then later evaluating the initiative and the meme as a failure. Therefore agency staff need to identify and negotiate the interpretation of memes, such as Landcare, Waterwatch or Sustainability, directly with different stakeholders. The frame through which NRM memes are interpreted is important. For example, a clear link is the ‘identity frame’ where many landholders believe they manage natural resources sustainably, and their ‘peer supported’ management practices are codified and communicated using specific memes. These memes give meaning to their existence, underpin their identity, their ‘way of life’ and their livelihood (following Kimball 2002 and Stasi 2002).

Understandably, landholders feel threatened by agency stakeholders who, as a consequence of incorrectly assuming a meme (e.g. Landcare) was interpreted in the ‘right’ way but ignored, then implement regulations and usurp landholder rights to make decisions on how best to care for land. This could be considered as a clash of memes. On the one hand, Government officials ignore landholder experience, discredit their experiential knowledge, trivialise landholder sense of connectedness with the land, and replace personal choice with coercion. On the other hand, the landholders may not communicate effectively with Government to describe what this Landcare meme means to them, or inquire into common interests between Government and themselves (following Stasi 2003).

Critical here is the ‘extension meme’. This meme concept could serve as a heuristic tool with the extension discipline, as well as with the broader contested NRM (institutional and organisational) environment, to inquire into and negotiate how extension is framed and replicated amongst stakeholders.
In the following section *social learning* is explored regarding its capacity to help locate social cohesion and coherency of interpretation in multi-stakeholder negotiation processes.

### 8.5 Social Learning

Concerted effort for dealing with different frames and uncertainty in NRM decision-making and intractable conflicts can be organised through social learning.

8.5.1 Interdependent learning in search of agreement and concerted action

Following Röling (2002), in pursuing a sustainable future, we need to move beyond ‘science’ to try to understand the uncertainty and unpredictability of human behaviour, and in so doing actually learn how we can deal with ourselves. He sees that:

A sustainable society emerges from interaction ... and requires recognition of interdependence. It is built on conflict resolution, the management of social dilemmas and on negotiated agreement. It must facilitate social learning. It requires institutions built on reciprocity and trust. Most of all a sustainable society must be capable of concerted action (Röling 2002:26).

Moreover, Röling sees that through interdependent social learning we must explore conditions and opportunities for collective action and to help design social processes that could give [this action] a chance. As part of this we need to begin to develop the skills and insights required to effectively facilitate and govern [reflexive human] (Beck 1992, Funtowicz and Ravetz 1994) interaction so that it yields desirable states (Röling 2002).

King and Jiggins (2002) maintain that while a precise definition is problematic (and cite a number of authors), they offer that ‘social learning’:

addresses systematic learning processes among multiple actors, who together define a purpose related to the agreed necessity of concerted action at a variety of scales (King and Jiggins 2002:86).

For this research, possibly a more aligned (and possibly more Australian) definition is by Woodhill (2002) who suggests that social learning is:

Processes by which society democratically adapts its core institutions to cope with social and ecological change in ways that will optimise the collective well-being of current and future generations (Woodhill 2002:323).

Engel and Salamon (2002) target governance, NRM dilemmas, and complexity:

[The challenges of governing collective knowing for local development] we believe, have to do mostly with moving beyond the aggregation of individual preferences towards inclusive and interactive social knowing in order to deal with complex socio-natural dilemmas effectively. … Next to a profound understanding of collective human cognition, this requires and even more focused effort than before to come to grips with its governance (adapted from Engel and Salamon 2002:62)

Despite this definitional amplitude, social learning can help us learn to better relate to each
other and manage the conflict which inevitably arises when people with values derived from
different ethical frameworks come together in an attempt to manage natural resources
(following Merchant 1992).

8.5.2 Cognition: Coherence and correspondence
According to Röling (2002), social learning can be approached most effectively through
considering cognition, as an overarching and integrating concept that identifies what makes
living organisms different from other combinations of matter and energy. He follows
Maturana and Varela (1979) and the ‘Santiago theory of cognition’, combines it with
experiential learning with Kolb (1984), and rural policy praxis paradigms from Bawden (1999
2000) to develop a diagram that captures essential elements of human cognition. Key aspects
he recognises as important for cognition include:

1. **The agent**: The active construction of reality is a quality of all living organisms (not just
humans). These organisms (or agents) perceive the environment or context, have beliefs
of theories about it as well as emotions upon which judgement criteria are based, and can
take action in it; and

2. **The context**: Organisms are structurally coupled to their environment through
coevolution and learning, and in this way form cognitive systems - a duality of perceiving
organisms and their environment(s).

3. **The ecosystem**: the environment or space in which multiple agents interact and mutually
adapt

![Diagram of cognition elements](image)

Figure 8.9: The elements of cognition (adapted from Röling 2002:33).

Two fundamental drivers are inter-related in the cognitive process:

1. Coherence (cognitive consistency among values/emotions, perceptions, theories and
action)

2. Correspondence (structural coupling between agent’s values/emotions, perceptions,
theories and action, and the context or domain of existence) (Röling 2002)
The key to the study of innovation is claimed by Röling (2002) to be located within the dilemma between a cognitive system’s coherence and correspondence.

Social learning can be best described as a move from multiple to collective or distributed cognition. Collective cognition emphasis shared attributes, i.e., shared myths or theories, shared values and collective action … Distributed cognition emphasises different but complementary contributions that allow concerted action, e.g. the operation on the market by a commercial company … Multiple cognition emphasises the existence, in one situation, of totally different cognitive agents with multiple perspectives (Röling 2002:35).

Following this theoretical base, Röling (2002) suggests that normally isolated multiple cognitive agents who become interdependent e.g. through shared interest in a natural resource base, can interact on platforms for natural resource negotiations and move toward collective action, and in so doing enable multiple cognition to grow into collective or distributed cognition (Röling 2002).

**Facilitation of social learning**

As suggested by King and Jiggins (2002), the facilitation of social learning can be guided by a model integrating education, natural science, social psychology, geography and development disciplines. King and Jiggins combine theories pertaining to the process of cognition (including: situated cognition; cognitive triangle; mind-action-emotion model, and; phenomenology) with triple-loop-learning (as described by Groot and Maarleveld 1999). This facilitation model is designed for working with landholders, and potentially institutional actors, and begins to move toward enabling reflexive processes that Woodhill (2002) advocates.

Woodhill (2002) draws on a reflexive modernisation perspective to place the facilitation of social learning for advancing sustainable NRM in Australia firmly within the domain of deeper structural issues such as institutional arrangements. He argues that the Landcare movement and integrated catchment management, born through a philosophy of community participation, empowerment and a self-help ‘landcare ethic’, has not resulted in the on-ground changes needed to arrest (let alone reverse) the advance of land degradation. A growing focus on the ‘institutionalist era’ of NRM requires, according to Woodhill, social learning that harnesses renewed interest in democracy, dialogue and discourse restructuring core institutions. He foreshadows the need for open and informed debate and greater participation in democratic processes surrounding NRM.

Basing argument on constructivist philosophy, Woodhill (2002) claims that without absolute or true foundations for knowledge or morality, the principles and values for everyday life need to be socially negotiated. Facilitators of social learning require much stronger philosophical foundations, intellectual resources and skills base for identifying underlying assumptions and values that lead them to take a particular response. Furthermore, the need for multiple stakeholders (NRM professionals, community leaders, activists and politicians) to engage in the facilitation of social learning is critical, and therefore these people also need a greater awareness of the assumptions underpinning their practices. Woodhill (2002) maintains that:

inadequate philosophical reflection about the assumptions, beliefs and values that underlie the risks to human wellbeing and ecological sustainability of modern industrial society is, in the end, the most fundamental constraint to sustainable development (Woodhill 1999:270).
As noted in Chapter 4, such failure to critically examine epistemological assumptions and make necessary changes in approach and methodology may lead to a failure to achieve the stated goals for a discipline. This dilemma is underlying the calls for new paradigms in natural resource management (Patterson and Williams 1998).

A key challenge, according to Woodhill (2002), is to identify institutional arrangements that will facilitate social learning and participatory democracy. He sees that while programs such as Landcare have enabled a good social learning model to develop, they have failed to engage with the underpinning structural (organisational) causes (see also Martin et al. 1992; Gray and Lawrence 2001). Several principles are required to facilitate institutional design and remedy these issues such as self-organisation, building social capital, facilitated coordination, institutional diversity, local-global dialectics, multi-layered democratic participation, autonomous and integrated knowledge systems, and meta reflexiveness. A key recommendation that Woodhill (1999 2002) makes to locate these principles within rural Australia is through regionalised social learning processes that embody and strengthen the democratic rubric upon which Australian society (and others) is based. Conceivably, social learning can be used as a methodological approach that aims to foster coherent reframing among such stakeholders.

8.5.3 Government institutes social learning for NRM through ‘Capacity Building’

Arguably, one national response to the above calls for improved ‘social learning’ are the ‘capacity building’ efforts (introduced in Chapter 2) being instituted by national programs throughout Australia since 2002, along with moves to more regionalised NRM governance approaches. Through the development of national programs (NAP and NHT) the Natural Resource Management Ministerial Council (NRMMC) endorsed in 2002 that to achieve NAP and NHT2 goals the role of Capacity Building within these programs needs to be: Informed and improved decision-making, and the implementation of these decisions resulting in the sustainable management of natural resources (Australian Government 2002).

The National Natural Resource Management Capacity Building Framework identifies four broad activity areas as the vital pillars for capacity building: Awareness; Information and knowledge; Skills and training; Facilitation and support (Australian Government 2004). However, while the NRMMC endorsed the need for long-term and ongoing facilitation to help support communities in actions related to sustainable NRM, build community networks needed to negotiate trade-offs, and help maintain stakeholder commitment to sustainable NRM, detailed guidelines have not been provided on how to do this. Macadam et al. (2004), following Wenger, argue that facilitating social learning is fundamental to capacity building:

Since the beginning of history human beings have formed communities that share cultural practices reflecting their collective learning; from a tribe around a cave fire, to a medieval guild, to a group of nurses in a ward, to a street gang, to a community of engineers interested in brake design … [They] are the basic building blocks of a social learning system because they are the social ‘containers’ of the competences that make up the system … [They] cannot be romanticised (Wenger 2000:229).

Macadam et al. (2004) see that the concept of ‘communities of practice’ (after Wenger 2000) provides a useful boundary for social learning processes leading to capacity building within rural communities, groups and individuals. They define capacity building as follows:
Capacity building is construed as externally or internally initiated processes designed to help individuals and groups associated with rural Australia to appreciate and manage their changing circumstances, with the objective of improving the stock of human, social, financial, physical and natural capital in an ethically defensible way (Macadam et al. 2004:33).

Capacity building occurs when relevant communities of practice use their stock of human and social capital and their access to financial, physical and natural capital to improve problematic situations and effect improvements in the stock of capital in the process (Macadam et al. 2004). Onko Kingma and Ian Falk (2000) recommended earlier that moves toward (regional) capacity building need to be supported by stakeholders:

- Reorienting policy strategies towards community capacity building
- Determining how a new form of enabling leadership can be fostered
- Facilitating development of learning communities that are flexible and responsive to community values, labour market requirements and environmental stewardship.

Building on Kingma’s recommendations, Macadam et al. maintain that capacity building needs to target human, physical, natural and financial and social capital to enable social cohesion, civic and economic wellbeing, and other beneficial social outcomes. Central to the notion of capacity building are participatory and inclusive processes of consultation, communication and decision making set in a regional context. Macadam et al. (2004) and Kingma and Falk (2000) claim that:

engaging a broad cross-section of the community allows for the forging and reinforcing of reciprocal trust, while resolving conflict in a way that builds rather than depletes social capital and trust. These activities create a learning community that is agile in its responsiveness to change and can respond to the emerging need for, for example, new skills for new industries” (Macadam et al. 2004:17; also see Kingma and Falk 2000:9).

Ridley (2003) and Macadam et al. (2004) maintain that NRM decision making and resulting actions need to occur at multiple levels and scales, e.g. the farm and catchment, landscape, regional and/or state and (inter)national scales. Ridley (2003) admonishes that policy instruments such as environmental management systems alone, good science alone, the use of group processes alone, and financial incentives or policy change in isolation are unlikely to produce better environmental outcomes at these various scales. Gaining community acceptance and engagement in, and ownership of possible solutions requires special effort, time and patience, particularly considering that outcomes are often uncertain. This, they observe, is problematic for managers and output/outcomes oriented funders.

Some 600 facilitator and coordinator staff are employed through the NAP and NHT to fulfil capacity building roles as well as other functions with regional bodies and catchment management authorities (van Esch 2004). Ridley (2003) and Macadam et al. (2004) suggest that the capacity building effort supported by the regionalisation of NRM attempts to provide more integrated support for facilitating and enabling change than earlier NRM models.

Capacity building through regionalised NRM governance arrangements is a key route for operationalising social learning in multi-stakeholder networks. This is highly desirable in light of the developed of quite sophisticated approaches and methodologies being facilitating social

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103 As evidenced with New Extension in Chapter 2
learning (see Groot 2002, Röling 2002, 2003, King and Jiggins 2002 and Woodhill 2002). It could be argued that the institutional (and organisational) restructuring process for NRM in Australia desperately needs such facilitated social learning processes for working with stakeholders who view reciprocity and trust as crucial preconditions for outcome focused engagement, effectively negotiated agreements and collective action.

**Considering extension’s links with social learning through capacity building**

Macadam et al. (2004) are uneasy about the continued role of extension in Australia. They claim that extension and education programs are commonly equated with capacity building, but that the concept of capacity building calls this into question. Furthermore, they assert that capacity building subsumes the concepts of extension and education. They argue that critiques of rural extension consistently highlight the continuing dominance of the technology transfer model related to RD&E in institutional arrangements and suggest that many existing extension/education programs are potential complements to capacity building. An overarching agreement is lacking however, on what constitutes capacity building and the use of a monitoring and evaluation system that stimulates it. In light of the recent reviews of extension (Coutts et al. 2004; Marsh and Pannell 2000; Murray 1999 – see Chapter 3), where over 4000 extension practitioners are recognised across Australia, that are involved in rural change processes and trajectories that ‘work’, it appears that there is an urgent need to negotiate the interdependence, complementarity and overlap between these communities of practice.

Considering the recommendations of Woodhill (1999 2002), the lack of accord between institutional interpretations of capacity building and extension require philosophical reflection about the assumptions, beliefs and values that underlie each of these models. Few, if any, government agencies or research institutions across Australia are exploring the philosophical foundations of extension or capacity building with little chance for serious deliberations in this area. In terms of action research possibilities, the Centre for Rural and Regional Innovation Queensland (CRRIQ) offered a single 'Philosophy of Extension' post-graduate subject, which gives an introduction to ‘What extension and philosophy mean, and their linkage’ (CRRIQ 2004). This was an ambitious attempt at a large and complex subject and further efforts are needed in this area. Irrespective of the academic support for further inquiry into the action philosophy (Woodhill 1999) of extension, capacity building, landcare and rural development in general, there remains a key need to enable theoretical and philosophical dialogue amongst stakeholders and practitioners from each of these communities of practice.

Missing from capacity building models in Australia are conceptual frameworks and process guidelines for **initiating and facilitating** negotiation and social learning processes. For example, guidelines are lacking amongst the three NRM agencies in Queensland (EPA, DPI&F and DNR&M) along with regional bodies, research institutions and industry for deciding whether or not to collaborate and determining effective collaborative arrangements. Other examples include stakeholders trying to resolve water allocation trade-offs, or DNR&M managers deliberating the value and role of policy instruments such as extension. Capacity building models lack tools for dealing with ‘strategically rational’ stakeholders within groups of more ‘communicative’ individuals (after Habermas 1981). Also critical for the endorsement and application of such models are stakeholders that openly distrust the capacity of ‘learning processes’ to achieve changed behaviour through changed cognition (e.g. DNR&M managers). A particular concern is when timeframes for participatory engagements

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104 This course was offered until CRRIQ ceased operations in 30 June 2008. Post 2008, North Coast TAFE in NSW appears to be the only centre providing extension service training.
are agreed and yet adversarial powerplays halt progress toward negotiated agreement (e.g. New Extension). Generally, in capacity building dialogue and literature, negotiation and methods for ‘building’ negotiation capacity appears to be limited or rudimentary at best (see Aslin and Brown 2002, Macadam et al. 2004).

8.6 Working with the power of emotion and enthusiasm

An interesting aspect of working with a large number of projects in the mostly institutional NRM arena in Queensland for over fifteen years is the chance to view and reflect upon many of these projects in retrospect to their longer-term outcomes. A key question is: did the results of the project change anything and were the recommendations implemented in any way? The response for most projects, and research episodes presented thus far is, ‘It is important to have the facilitator and processes engaged with the enthusiasm of participants, or have a champion or supporter with some enthusiasm to carry it forward (also see Metcalfe et al. 2006, Oliver 2004, Schusler et al. 2003).’

Writings by Ison and Russell (2000) capture this notion of enthusiasm as it relates to the conduct of research, development and extension projects, and processes in rural contexts. These authors specifically interrelate understanding, agreement, enthusiasm and confidence as four interrelated concepts, all prerequisites for ‘getting something done.’ They write:

In human co-existence, the quality of an action is normally recognised in terms of its emotional context, e.g. a churlish, but obedient child who ‘sits up straight’ does so quite differently from an excited eager child awaiting some reward. This is an evaluation of the person’s emotions which we carry out intuitively in the course or our understanding. It also illustrates the fundamental difference between understanding and agreement. Whereas an understanding between two people cannot occur between two people without an emotional accord, agreement certainly can and often does. What we call an agreement is a particular action in language that serves to coordinate our actions, but need not have an emotional basis for even the slightest understanding between the parties involved (Ison and Russell 2000:46).

This emotional dimension of agreement has been critical in each of the research episodes, however my concern for the complexity and uncertain value in making this explicit prevented me from doing so. Ison and Russell (2000) suggest that the prevailing culture today, especially in science, is to deny and denigrate emotionality, which has many consequences in the relationships that make up daily life. Following Maturana, they point out that humans are rational–emotive animals but the distinguishing characteristic from other animals is the way our rationality and emotions braid together.

In speaking about their experiences as technically trained (scientific) R&D communicators, Ison and Russell (2000) indicate that while they may have felt confident in providing scientific interpretations to multi-party processes, achieving truly collaborative action was only possible when understanding and agreement included emotional synergies were achieved through language. They go further to focus on confidence, suggesting that the confidence that comes with understanding opens up and creates more possibilities in human interaction, with the converse also being critical. In speaking about extension and rural development, there are many situations in which a lack of confidence and discrediting of the emotional aspect of an interaction can lead to limited understandings by all parties and rather ineffective agreements about future courses of action. In situations such as these the parties often act in a guarded
fashion, fearful of uncertainty, lacking in trust and ultimately limiting the number of options available (Ison and Russell 2000).

### 8.6.1 Enthusiasm as a building block for theory

Ison and Russell (2000) go beyond observation and acknowledgment of the importance of enthusiasm to build theory based on the intellectual notion, driving force and methodology of how it helps us to do something (go from A to B).

The emotion or driving force idea of enthusiasm has always been central in psychology. In motivation theory it is always originated as a biological drive – the engine of life. Enthusiasm as a methodology … must be underpinned by the biological understanding of the drive itself as well as the theoretical principles. It must be shaped in a way that does not redirect a person’s energy – we want to find out where their energy is. This is the initial task of the methodology. But to do that we need to ask the right sort of questions (Ison and Russell 2000:225).

This is where the narrative fits, allowing one to find where a person’s enthusiasm is (or may be) focused. Rather than asking factual information, which comes from positivism, the scientific culture, they see different kinds of questions and different languages are needed. Questions that explore the dimensions behind the rational may be pertinent e.g. ‘how did you come to be here?’ or ‘what keeps you here?’ These questions provoke narratives and stories about people’s lives. Through encouraging and listening to these stories, moments of enthusiasm can emerge. The enthusiasms from the conversation can be recorded, mapped and made explicit to all involved. Points of convergence with common enthusiasm may well highlight opportunity areas where stakeholders may gain benefit in working together. Also where there is a (group) climate, in which people are encouraged and enabled to express their enthusiasms, there is every likelihood that this will be a mutually satisfying and collaborative environment (adapted from Ison and Russell 2000).

Following these authors, stages within NRM projects could conceivably be guided by the principles of enthusiasm. Ison and Russell (2000) define the triggering of ‘enthusiasm for action’ as a staged process:

1. when someone is invited to talk, the emotional connection is established through active listening and genuine concern is then manifest in the conversation
2. through actively listening to another, an invitation is (consciously or unconsciously) made to create space for options to emerge from both (or all) parties
3. actions to maintain the conversation or interactions trigger emotions and moods or body dispositions (following Maturana 1988) enabling (for some) new ways of being that are emergent rather than directional
4. external resources then become enablers or constraints of ‘enthusiasm for action’
5. the design of processes to bring people together who share common enthusiasms for action then requires careful attention
6. cycles of critical reflection will then reduce the chance of enthusiasm giving rise to disordered ideas and actions.

A key interest here is that in the design process in Stage 5 above, Ison and Russell found that decision-making processes that promoted group consensus were ineffectual, resulting in inaction on the part of those in the group that were not enthusiastic about the agreement, dissension in the group and suppressed enthusiasm for action. At many levels of a system, activity that searches for consensus is inappropriate, and needs to be balanced with valuing diversity (from Ison and Russell 2000).
Drawing from research (predominantly in NSW Australia), Ison and Russell drew together some guiding principles for using enthusiasm as a supporting consideration when designing an interactive decision-making process. These are included in Figure 8.10. These authors also found that a number of specific practices aided their efforts to investigate and indeed stimulate the enthusiasm of rural people in Australia. These are summarised in Figure 8.11.

In line with this input from Ison and Russell, I intend to consider and work with enthusiasm and emotional dimensions in further episodes of this research. Closely aligned is the notion of creativity, the art of taking the driving force of enthusiasm and creating new solutions.

1. People value being invited to contribute. It is desirable for invitations to remain open for all to participate in interactive NRM decision-making processes.
2. Each person's knowledge and experience is unique and valid for its context. Knowledge and experience are results of the particular context (personal and physical environment), and specific to individuals and their social situation.
3. The context in which knowledge and experience are gained is very important and often overlooked. In interactions a diversity of approaches is valuable as such diversity is more likely to underscore the context-dependent nature of NRM.
4. Research which links theory with action through a process of planning, acting, observing and reflecting or evaluating is likely to lead to more meaningful outcomes than just discovering the ‘facts’.
5. Each meeting needs to be carefully designed with attention to process, use of language and sharing of expectations.
6. Interactive NRM decision-making (for example) often does not work if someone else always takes responsibility for every aspect of it. Local people or the ‘clients’ have no power and responsibility. This may make interaction/participation less useful in many situations.

Figure 8.10: Guiding principles for process design involving enthusiasm as methodology (adapted from Ison and Russell 2000)

1. Let go your own thoughts and awareness so as to give your full attention to the other person.
2. Show in your initial exchange that you really want to hear what the other person is saying and in the way they are saying it.
3. Encourage a climate in which others in the room accept that what is being expressed is valid for the speaker and can be understood as such without demanding ‘agreement’.
4. The facilitator (trigger person) needs to manage the environment so that each person feels that they will be listened to equally and what they say will be accepted (not necessarily agreed with).
5. Encourage each person to say more by having 'an ear' for the plot. Encourage the person to move through hesitancy.
6. Recognise that some leads will in turn trigger a more generalised enthusiasm. A particular story may unfold (gain public recognition) at another time and place.
7. The trigger person must show sensitivity at all times to the story as it is told. Treat the story as a precious gift. This can be shown in verbal and non-verbal behaviour.
8. Be aware that there can be interrupting behaviours, passive, negative, dominating, and so on.

Figure 8.11: Guiding practices for process design involving enthusiasm as methodology (adapted from Ison and Russell 2000)
8.7 Creativity

An “unwillingness to embrace creative tension as a source of energy and renewal” (Kerka 1995) is a cultural deterrent that prevents multi-party negotiation of wicked problems such as extension policy. The following section investigates literature to investigate cultural norms surrounding the notion of creativity with a view to identifying approaches that actively gain value from the creative tension Kerka refers to.

8.7.1 Creativity, lateral thinking and the conventional approaches to planning

Creativity is most often related in literature to problem solving. Aarts et al. counter though, that this is a western tendency with restricted usefulness (Aarts et al. 2003). In contrast to the means-end planning approach, in which creativity is a form of problem solving, Aarts and van Woerkum introduce an alternative way of planning in which creativity has a broader scope. This alternate approach sees that instead of ‘fixed objectives’ the preference is a socially constructed clear sense of direction, and instead of ‘fixed means’ the preference is a set of promising options that are well-chosen with the intention to experiment and try what works. Placing creativity within this, interventions might target the;

- Establishment of creative mood – need to separate the creative from the rational-analytic (problem solving). Re-framing organisational-environment relationships is practically impossible unless people are encouraged and enabled to become involved in intense interaction where there exists a creative mood (e.g. without administration, paper-work, telephones, external pressures).
- Providing conative vs cognitive possibilities – some people need purposeful action (physically) to be creative whereas others are more cognitively (mentally) creative
- Maintaining participatory safety in groups – non-threatening interpersonal environments favour creativity
- Regard conflict as a source of new ‘creative’ ideas – rather than a source of disturbing unrest
- Balance external pressure – too much reduces experimentation, too little encourages ‘free-wheeling’
- Encourage storytelling and narratives – through interactive organisational encounters
- Welcome emotional appeal and spirituality – clarify spirituality in group contexts

(adapted from Aarts and van Woerkum 2003)

Interventions framed in this manner target lateral thinking beyond conventional problem solving approaches to creating alternative solutions. De Bono (2003) insists that lateral thinking is a way of thinking that seeks a solution to an intractable problem through unorthodox methods or elements that would normally be ignored by logical thinking. Lateral thinking involves disrupting an apparent ‘logical’ thinking sequence and arriving at the solution from another angle. Edward de Bono’s lateral thinking tools such as the ‘six thinking hats’ have a longer history and acceptance with extension practitioners in Queensland (James pers.comm., Reid pers.comm.).

Following is an investigation of Edward de Bono’s recent works on ‘thinking’ and his considerations of design and negotiation. My introduction to lateral thinking tools was through professional development training in DPI&F (1993), where de Bono’s six hats was used by numerous extension officers (for example: as a tool for considering property management options)\(^\text{105}\).

\(^\text{105}\) On reflection after reading de Bono (2003) “Why So Stupid”, I realised that my application of his thinking and tools, was quite naïve and limited. It had not occurred to me the enormous role that
8.7.2 Description vs Action: Our preoccupation with argument

In the post-modern era, de Bono (2003) asks fundamental questions of our socialised, normative and almost universally practiced ways of thinking, and further of interacting, arguing, negotiating and making decisions. De Bono identifies a very big difference between description and action, and suggests that our historic development of thinking has been to describe, analyse, reflect and philosophically examine. He claims that these approaches do not provide us with the simple, practical and effective operational tools for thinking.

For more than two thousand years we have been content with argument as a way of examining a subject. This is a crude and primitive method of thinking that emphasises ‘case making’ rather than exploration. We have been content to use such an inefficient method in politics, in law, in business and even in domestic affairs. Why? (de Bono 2003:143).

Through a ‘case making’ approach to thinking, the argument is centred on ‘what is’. Each side of the argument makes claims of what it ‘is’. Argument ensues to see who is right. Occasionally, the result is a synthesis of each side’s point of view, however more often than not, one party or another believes that they have won the argument (de Bono 2003).

Questioning the historic reasons, de Bono provides the following reasons why we perpetuate these ineffectual approaches to ‘arguing our way forward’:

1. Poor negotiation design – For over 2,000 years, we have not designed something better than argument. Dick (2004) believes that we have over 10,000 years of bureaucracy behind us, and that this ‘hard-wires’ our approach approaches to negotiation (Dick 2004).

2. The Greek Philosophers – Socrates developed argument for thinking about subjects, Plato thought in absolutes and Aristotle using judgement and ‘box certainties’ underpinned this with a dominant methodology. This Gang of Three made an enormous contribution with the system of categories, recognition and the ‘game of logic’. Their contributions have lasted to the present and are still in everyday use.

3. Predilection for the truth – The Renaissance saw this Greek way of thinking supported through the Church which, ever pursuant of ‘truth’, needed ways to prove heretics wrong. Argument met this need perfectly (inciting national conflict and war) and the Church had little need for creativity and design. Today’s bureaucracies often perpetuate this.

4. Legalising argument – The defined end point of argument (a winner and a loser – one is right the other is wrong) is attractive to law. The legal system has evolved based on this from the champion of the State fighting an alleged criminal with flailing swords to our current day battles with words (adapted from de Bono 2003).

Although over the centuries concepts and values changed, the fundamental methods of thinking have changed very little (de Bono 2003).

8.7.3 Physiological limits: The tiring factor, truth and selective perception

Commonly, limited consideration is given to the impact that our (physiological) capacity to think has on how we interact with others, learn and make decisions. A key limitation of thinking capacity is the ‘tiring factor’, where nerve cells (as opposed to mechanical equivalents such as transistors) actually ‘get tired’ and their capacity to receive and process signals fluctuates. As a consequence this adds significantly to the complexity of human thinking and creativity play in our interactions and that approaches like parallel thinking (using the ‘six hats’ tool) may be directly applicable to (multi-party) NRM negotiation processes.
mental processes. The brain’s ‘natural’ or innate response is to set up stable patterns (and defence mechanisms) as a crucial means for dealing with the millions of sensory signals (including information about life’s issues) (de Bono 2003). This relates strongly with Argyris and Schön’s theories-in-use concept (above).

Therefore, these natural features of the normally functioning human brain have served us exceptionally well in the areas of science and technology (that have historic roots with the Greek philosophers’ instigation of recognition thinking’). The big challenge, however, is in the areas that require ‘design’ rather than judgement (de Bono 2003). de Bono’s claims that:

While the brain is indeed excellent at pattern forming, recognition, judgement and discrimination, it is at the same time very poor at other activities such as creativity … the human race has never really learned how to think. What we have is ‘recognition’ which is excellent and useful. But we have never developed the ‘design’ sort of thinking which we so badly need to design the future (de Bono 2003:65-66).

Closely related to strengths in recognition are questions regarding the role and traditions of ‘truth.’ On the one hand, truth is essential to human affairs in life and death or strong moral dilemmas. Truth in these cases is very highly valued. Simultaneously, however, truth as a concept can be dangerous and misleading.

Truth based on selective perception is one of the most dangerous forms of truth because it is genuinely experienced and genuinely believed to be true. Truth based on selective perception is a particular form of ‘belief-truth’. Here we set up a framework of beliefs and values. Looking at the world through that framework reinforces the ‘truth’ of that framework (e.g. religious beliefs) (de Bono 2003:105).

An unfortunate aspect of confirming the ‘truth’ of belief systems and the like is that one needs to show that other beliefs are not true. Through history this has resulted in the ravages of war, persecution and plunder (de Bono 2003).

‘Game truth’ can play a powerful role. Even though it is artificial, it is in a sense the truest form of truth. In a game, because you have agreed to play, you accept the ‘game’ and ‘play the rules’. Logic is a classic example of ‘game truth’, where one needs to follow the rules of logic. These rules are said to apply to all human thinking, however, one distinction that is mostly overlooked is perception and perceptual choice ‘game truth’ only if the players believed in the game and accepted all the starting premises (de Bono 2003).

Through recent centuries it became apparent that personal perception was overlooked in the theological thinkers’ pursuit of truth. In theology the starting concepts were fixed, and the theologians, humanists and lawyers propelling this ‘new thinking’ were interested in argument and proving a point (de Bono 2003).

The processing aspect of logic been emphasised and developed. Very little attention was paid to perception because it was so variable and so intangible. Today, however we can begin to understand the nature of the brain as a self-organising information system. We can see how the brain forms patterns. We can see how perception works – and – begin to design thinking tools that help improve perception (de Bono 2003:123-124).
8.7.4 The Design Crisis – The need to move from Judgement Thinking to Design Thinking

Humanity’s obsession with history needs to be relocated into (or balanced with) our design of the future. Educational systems should be placing greater emphasis on value creation and thinking in order to support this emergent design need. Philosophy initially tried to look at thinking but quickly reverted to the analysis of meaning, concepts and word games in general – in total the ‘game of logic’ (de Bono 2003). While this is very valuable:

In fact logic is far less important than perception in everyday thinking. This is not to devalue philosophy, which has its role and value in society, but to emphasise that there is a big difference between philosophy and the practical teaching of thinking as a skill. Making [learners] aware of mistakes is only a very small part of thinking (de Bono 2003:284-285).

De Bono claims that a key crisis of the human race is that we have learned judgement thinking but not design thinking. Judgment is about the past and about avoiding mistakes whereas design is about the future and creating value. There is a need to better equip existing thinking systems through developing thinking and creativity as learned skills. Such skills and capacities are needed to overcome the design crisis and deal more effectively with self-organising systems, and in fact disturb them to bring these systems to a more effective level. De Bono (2003) argues that:

Any system with an input of information spaced out over time, and the periodic need to make the best use of available information, will always be sub-optimal (because the sequence of arrival of the information plays too large a part in its disposition) (de Bono 2003:177).

The best progress may not be a linear evolutionary line. As we receive new information we need to often go back on concepts which may have originally been very good and change them because they in fact block the road to better outcomes or concepts. Therefore, we often need to disturb and move self-organising systems out of a stable pattern (or ‘local equilibrium’) in order to reach a more ‘global equilibrium’. In other words, someone or something often needs to disturb a system’s status quo (as with Argyris and Schön above) in order for it to redefine itself and its relationships with other systems.

In a social context, moving out of stable positions in order to move to a better position is extremely difficult. Any first steps to disturb relationships are often seen as negative when compared to the existing stability, which creates its own framework of judgement and gatekeepers to uphold that judgement.

The guardians of the status quo resent any change. This is especially so if they do not even understand the suggested change. This difficulty in moving away from a stable local equilibrium does not lead to greater stability in society. It also means that progress is much slower than it could be. We always hope that change will be by small, slow steps that do not upset anyone. Sometimes this is indeed possible. Usually it is not (de Bono 2003:186-187).

8.7.5 Design, creativity and negotiation

de Bono’s work is very exciting in the complex area of designing for the future, and as much as any other dimension of society, this applies to the complexities and multi-perspectives of NRM. Global observations of our existing thinking systems identify that our current capacities are excellent at analysis, judgement and recognition and telling us ‘what is’ –
ultimately seeking ‘truth’. However, we need to improve our thinking for creativity, and designing ‘what can be’ – ultimately seeking ‘value’ (de Bono 2003).

de Bono makes significant claims with creativity, design and faults within existing systems:

1. Our existing thinking does not equip us to be creative. As a result we rely on chance creativity and chance creative individuals and on gradual evolution to shape our ideas and our institutions. This is a slow and inefficient process;
2. Because we are weak at creativity, we are also weak at design and are unable to design new values and new ways of delivering value;
3. The problem with ‘boxes’ and ‘categories’ makes conflict resolution so difficult;
4. Existing thinking puts a lot of emphasis on logic. Yet most of our thinking, and almost all the errors take place in perception, and;
5. Argument is a crude and primitive way of exploring a subject and is mainly concerned with ‘case-making’ to prove another party wrong (adapted from de Bono 2003).

While these are provocative points and broad generalisations that may not apply to all stakeholders (i.e. NRM stakeholders), they resonate strongly with the context of NRM decision-making e.g. (Chapter 3, 5, 7). An example of weak design was the dysfunction process used to plan the compliance workshop process (Section 5.3), where pre-workshop deliberations did not explicitly consider effective ways for delivering value to supporters of extension as well as compliance. Another example is the existing way of thinking that was used by the Service Delivery Board to decide on the discontinuation of the proposal to reengage extension policy discussion (Section 7.2). Interactions in the leadup to this decision were largely focused on case-making on behalf of the IRM Executive to prove the Service Delivery Board’s opinion on extension to be wrong. Also the tendency to create often very overlapping ‘boxes’ around concepts such as extension, compliance, community engagement and capacity building made logical resolution of the issue quite difficult.

**Design conference**

de Bono’s notion of a ‘design conference’ that targets collective preparation for multi-stakeholder negotiation processes goes right to the very core of this research:

Before any negotiation conference there is a need for a ‘design’ conference. The purpose of the design conference is to create new alternatives, new possibilities, new concepts and new ways forward. When the ‘negotiating’ conference then follows, there is much more to work with. During negotiations it is very difficult to bring forth new ideas because they are immediately seen as judgement positions, in favour of the side putting forward the new idea. In the design conference ideas are simply put on the table with no commitment. There is an apparent need for such a ‘design conference’ in the Middle East (de Bono 2003:324-325).

Within the design process, provocation is essential for challenging a self-organising system in order to move from a local equilibrium (status quo) to a more global one. Robinson’s (2001) perspective on design adds an iterative (recursive) dimension to de Bono’s (2003) design conference:

[People] may decide to start some activity, such as implementing a design, and they may also try to control how the activity will unfold. Nevertheless, this control is never complete, and unintended consequences are commonplace. These unintended consequences force people to revise their sense of what is happening and what can be accomplished. And it is these revised
interpretations, rather than the initial decisions, that guide action and constitute the actual design in use. That design in use is shaped more by action than by plans, and more by interpretation than by decisions (Robinson 2001:60).

Following such reasoning, the iterative design function of the triple-loop negotiation model may be best positioned as an overall intervention approach for a long-term change process or initiative, rather than a tool for one-off event in a change trajectory. The model’s point of entry in the design conference is through organising negotiations about how the negotiation process is to proceed in an exploratory phase where alternatives are brought into the picture.

8.7.6 Harnessing perception with tools

de Bono (2003) maintains that it is impossible to notice, observe or pay attention to everything around us. Therefore, what we choose to pay attention to is crucial for determining our perception and in turn, our behaviour. Changes in perception will dramatically effect emotions and behaviour, whereas the use of logic will not have these effects. The CoRT (Cognitive Research Trust) Thinking Program was developed for ‘directing the attention’ of individuals (de Bono 1973). The OPV (Other People's Views) is a simple tool that concerns the level of humility different parties may ascribe to putting themselves in the other’s shoes and looking at an issue or a case-in-point from their opposite’s viewpoint. Arguably, mutual outcomes will require some agreed process ground-rules and reflexive process elements, using tools (e.g. paraphrasing) where each party can consider how well the other party has ‘stood in their shoes.’

Following Dick (2004), parallel thinking using the structured tools such as ‘The Six Thinking Hats’ is a significant contribution that de Bono makes to the way in which we can approach decision-making, deal with differences and indeed negotiate creatively.

The big difference between parallel thinking and adversarial thinking (argument) is that at any moment everyone is thinking in parallel. The whole point of parallel thinking is that everyone is thinking about the subject matter not about what the other person has said. For this reason there is a through exploration of the subject and, usually, some agreed way forward at the end. If everyone were to think and to look in the same direction there would need to be some clearly indicated direction. This direction is provided by the symbolic ‘Six Hats’. At any one moment everyone is wearing, metaphorically, one of the six hats. So everyone ends up thinking in the same direction (de Bono 2003:149-150).

The Six Thinking Hats is a group facilitation tool which can be used to enable parallel thinking where participants collectively consider a focal issue from six different perspectives. Each hat has a recognised colour that represents six different states:
- Information: (White) – considering what information is available, what are the facts?
- Emotions (Red) – instinctive gut reaction or emotional feeling (without justification)
- Bad points judgment (Black) – logical flaws or barriers, seeking mismatch
- Good points judgment (Yellow) – logic applied to identifying benefits, seeking harmony
- Creativity (Green) – provocation and investigation, seeing where a thought goes
- Thinking (Blue) – thinking about thinking (de Bono 1985).
The Six Thinking Hats provides a framework for parallel thinking with the aim of avoiding ‘time wasting’ argument generated by three fundamental difficulties we encounter when thinking and interacting with others:

1. **Emotions** – We often tend not to think at all but to rely on instant emotion, gut feeling, and prejudice as a basis for action. Emotions are important for thinking and, in the end, all decisions and choices that are made involve our feelings. Emotions at opportune places in a thinking process can be essential for an effective decision or outcome, but at the wrong place can be disastrous. The six hats method allows participants to use emotions and feelings in a more ordered and ‘parallel’ manner.

2. **Helplessness** – We may sometimes react with feelings of inadequacy: ‘I don't know what to do next. I don't know how to think about this.’ Helplessness arises when we do not have any positive thinking direction or action that can be taken. The six hats method provides a basic framework for thinking actions with definite ‘next steps’.

3. **Confusion** – We can try to keep everything in mind at once, with a mess as a result. Confusion arises when we try to do too much simultaneously, and as we try to think about something, our minds go off in several different directions at the same time. The six hats method is aimed at taking one direction at a time (Department of Technology in Education 2004). If there is disagreement under any one hat, there is no argument. Both differing versions are recorded (de Bono 2003).

Universally, six hats aims to achieve results through each thinker (or participant) being challenged to use all their experience, information and intellect. De Bono (2003) notes its divergence from the ‘clever case making’ of traditional adversarial interactions. Furthermore, when the six hats method is used the ‘way forward’ often becomes obvious to participants, thus negating the need to further argue one proposal against another.

An interesting physiological reason for the success of parallel thinking (using six hats methods or other), may be attributed to recent research indicating the brain becomes sensitised to either dangerous or positive-constructive situations.

When we are frightened we do see more danger, when we are positive we do see more value, etc. Since we cannot be sensitised in all directions at the same time, we need to separate out our thinking modes – as is done with the six hats, where each type of thinking is separated out and given its full attention (de Bono 2003:163-164).

### 8.8 Network building

A fundamental component of a model seeking to institutionalise extension concerns the means of considering and organising the social realities of interaction. While it is difficult to draw boundaries around this area, the interdependent notions of network building and participation deserve attention. Network building concerns the initiatives that catalyse stakeholders coming together to interact over some point of interest. Participation is where these same stakeholders and/or others contribute something and interact with the aim of finding a solution to, or progressing this point of interest in some way.

#### 8.8.1 Network building as a desired activity

The natural tendency of individuals is to seek out those who they are comfortable with, those who are like them. The popular anecdote ‘birds of a feather flock together’ is testimony to this willingness to create and be involved in groups with a comfort zone and a sense of belonging.
This comfort zone is strengthened when participants are recognised within the group, they know the group’s language, and have predictable conversation and established rituals. This tendency promotes a networking function where exchanging information that is valuable to the members of the group (Chadwick 2001).

Arguably, there are both positive and negative aspects of these networking tendencies and approaches. On the one hand, well-developed networking paths, both horizontal (across agencies and sectors) and vertical (agencies to communities to individuals) are regarded by some authors as key components of social environment, in which different stakeholder groups can be most constructively use science and other information. This type of social environment is characterised by a high degree of social capital where different groups involved (industry, land managers, regional and local councils, science, and other stakeholders) are open to different viewpoints, and there is trust between the different players (Allen and Kilvington 2002). On the other hand, ‘groupthink’ in a network can limit the information that ‘members’ receive, or can give. Information becomes slanted purposely to meet the group’s needs or intents and that which seems to disagree with the groupthink is wrong, or disloyal. Furthermore, the members convince each other of the validity of the group’s beliefs and move to agree on the stereotypes of others who are outside the group. This tendency can progress to the point where the group will not allow questioning of the network’s beliefs which in turn limits flexibility, impedes learning, as well as affecting decision making and conflict resolution (see Argyris and Schön 1985, Dick and Dalmau 1999, Chadwick 2001).

Leeuwis (2004) maintains that social learning and negotiation, as well as the management of interactive processes cannot take place within a vacuum. He sees network building among multiple stakeholders as:

activities that result in, and/or are directed to, the establishment of, at first relatively non-committal contacts between actors, as a foundation for possibly more committed relationships in the future. Networking contributes to what Van Woerkum and Aarts (2002) call ‘relationship capital’; i.e. the quality and quantity of relationships on which an organisation can draw in order to play a meaningful role and secure its existence (Leeuwis 2004:327).

Moreover, network building is an activity that increases the options and/or chances for stakeholders to become proactively involved in network building. In this sense, network building targets the creation of new social and technical arrangements for learning and negotiation (Leeuwis 2004).

In terms of the networking approach in rural and regional Australia, fostering relationships between community members and government workers requires an increased ‘networking’ role of public servants in communities and initiating contact with a greater diversity of clients (Cavaye 1999). In the context of Australian extension, future skills are needed for networking which gives particular capacity for engaging a diversity of people, supporting community champions, helping people plan action, resolve conflict, facilitate and help support a community-led process (Cavaye 1999). It has been more recently recognised that such extension practitioners require good people skills to maximise the likelihood of good networking, and the trust and respect necessary to facilitate sharing of different types of knowledge in ways that maximise outcomes (Lambert and Elix 2003). This is recognised to be happening in some sections of the extension community in examples such as described by Roberts and Coutts where national programs (such as the National Heritage Trust) are training facilitators in on-going networking and group empowerment (Roberts and Coutts 2002).
There remains, however, much to be improved.

Allen and Kilvington (2002) suggest that in change processes the capacity of external factors (networking supporting relationships and trust) and internal factors (group abilities and skills) are fundamental for getting the right interrelationship between achieving ‘task’ benefits (on-the-ground change) and developing effective and sustainable capacity to make the process ongoing. In other words, networking abilities and skills are necessary for stakeholders or agencies seeking to catalyse participatory processes.

As introduced in Chapter 4, social learning and decision-making models (may) fail to resolve conflict in interactive processes and provide an insufficient basis for organizing viable participatory processes. In following Leeuwis’ (2000 2004) solution to organize participatory interactions as negotiation processes, the above arguments on action science and particularly the ‘design room’ of de Bono (2003) point toward the collective development or ‘design’ of the participatory methodology itself. Hemmati (2002) suggests that the design phase should be a multi-stakeholder effort. Therefore, the negotiation tasks that Leeuwis (2000 2004) proposes are best served as an example methodology along with others widely recognised in multi-stakeholder processes (e.g. Engel and Salomon 1997, Hemmati 2002), but within a process of design which is itself an integrative (negotiation) process.

Van Woerkum (1999) talks of integral design where processes are planned in which participants take efforts to combine negotiation with learning (van Woerkum in Leeuwis 2002). Five principles are suggested by Aarts and van Woerkum (1999) for shaping an integral design process:

1. Multi-functional tackling of collective problem(s) – deal with systems not parts
2. An interactive style of management – inclusive involvement of key stakeholders in decision-making
3. Inter-disciplinary exchange and inquiry – communicate and negotiate language, paradigms, tradition
4. Use of implicit and social knowledge – making implicit ideas and assumptions explicit
5. Reinforcement of cultural identity – support need for distinct ‘identity’ present in our current society

For the design phase or planning the negotiation process, Hemmati (2002) suggests that stakeholder identification is concerned with issues, inclusiveness, diversity and size. Open calls for participation should be the preferred mechanism, and recommends being as inclusive as necessary and possible and dealing creatively with the problems of numbers and diversity. As NRM issues are very complex and affect a great number of stakeholders, a high degree of diversity is desirable. Principally, all who have a stake in a policy, process or project, should be part of a multi-stakeholder process relating to it.

8.8.2 Facilitating network building

Building on the facilitation of multi-party processes as introduced in Chapter 6, in the integral design of the negotiation process, attention needs to be paid to the facilitation of a learning ‘trajectory’ (Leeuwis 2000). Van Woerkum (1999) maintains that it is only on the basis of effective processes of joint learning that negotiations can become creative (instead of conflictual – distributive). Therefore facilitators should play an important part within the interactive design process to mobilise this, and in line with the above arguments for reframing, uncertainty and learning, and action science, to ensure flexibility and creativity in how stakeholders learn about and consider these aspects (and others) when designing the way
forward. Creativity and flexibility are often required from facilitators as uncharted and unanticipated events make adjustments of the chosen design (or trajectory) essential. Selection or oscillation between one, two or a number of these different arguments may help unblock, redirect or even hasten progress within an interactive (negotiation) process.

The planning scope for process design is limited, and a ‘step by step’ guideline to facilitating an interactive process can be misleading. Leeuwis (2004) recommends that a creative, selective and purposeful application of tasks and tips (such as outlined in Table 8.1) are necessary for facilitating a productive learning and negotiation process (Leeuwis 2002 2004). While the findings from research episodes support the fact that somewhere along a project trajectory different tasks need to be decided upon and enacted, the entry point to engaging with the epistemological positions, strategic agendas and indeed preferences for interaction remains unclear. The principles for integrative design (Aarts and van Woerkum 2002), while being very supportive of interactive and interdisciplinary exchange, are also problematic for engaging with beliefs and values as drivers of change to use as a point of entry to the design process. Using the key arguments presented above within a flexible facilitation model for ‘entering into’ the design process, may in fact enable smoother transition from the identification of an issue through to planning how collectively, incorporating the beliefs, values, agendas and preferences for interaction, stakeholders may design a way forward.

In this light, the guidelines Leeuwis (2004) proposes for organising and facilitating interactive learning, network building and negotiation processes may be best introduced as one option for guiding the interactive process once the stakeholders involved have negotiated some agreement on using such a methodology. Leeuwis’s (2004) ‘flexible’ methodology is presented in Table 8.1 as a collection of tasks and tips aiming to balance learning and negotiation in a deliberative decision-making process.

While in research episodes it has proven difficult to engage people in considering and using this framework to plan or conduct negotiation interactions, in my view it serves as an extremely useful tool for stakeholders to use for working toward, and within, the third loop of the triple-loop-negotiation process. Also, it may form a useful tool for facilitators to use with groups who have engaged, or are engaging in this third loop.

### 8.9 Linking NRM negotiation and extension

Leeuwis (2004) provides exciting new ways of thinking about extension in the quest to improve its institutional role (based on informal rules) in DNR&M (an organisation based on formal rules). In following the growing need within DNR&M to develop improved NRM negotiation processes, explicit linkage back to such contemporary notions of extension that incorporate negotiation processes and praxis alongside network building and learning will aid this quest. The entry point to engaging with organisational stakeholders in DNR&M, however, remains challenging. It is unclear how triple-loop-negotiation concepts (as presented above) may be operationalised to support a deliberative process. Following are some further considerations about operationalising triple-loop-thinking.

#### 8.9.1 Revisiting triple-loop-negotiation thinking

The above investigations add conceptual underpinnings of the emerging triple-loop-negotiation model in this research, particularly when entering into processes of interacting with stakeholders to consider and inquire into the institutional (and organisational) role of
extension. Inquiry for provoking creative thought (de Bono 2003) and confronting (known, unknown and blind) positions on extension (Argyris and Schön in Robinson 2001 Friedman 2003).

**Triple-loop-negotiation as a process of inquiry**

Arguably Argyris and Schön’s greatest contribution is a theory and practice of intervention demonstrating how to collaborate with practitioners to improve the quality of organisational inquiry (Argyris 1970 1990 1993 Robinson 2001). Such inquiry processes can identify the pattern of values and organisational practices that contribute to unintended organisational problems. In confronting and inquiring into organisational errors (problems), Argyris and Schön identify:

- ‘first-order’ error, as ineffectiveness or inefficiency in some aspect of the task system.
- ‘Second-order’ errors concern deficiencies of the inquiry or learning system that produced the first-order error (Robinson 2001:63).

Argyris and Schön focus efforts on inquiry into these second-order errors for they are symptomatic of fundamental limitations within organisational systems, which without correction will allow many first-order errors to remain undetected and uncorrected. Their work targets those practitioners who are ‘selectively inattentive’ to second-order errors and to the behavioural phenomena, such as defensive reasoning, competitive micro politics and mixed messages that cause and perpetuate these errors (Robinson 2001).

Through inquiry, and by making explicit what is implicit in their practice, Argyris and Schön’s tools ‘empower’ practitioners by showing them how they have contributed to the status quo, and how, having constructed it, they might contribute to its reconstruction. Furthermore, that reconstruction should involve change to the values that underpin problematic practice (double-loop change) and not just change to surface level practices (single-loop learning) (Robinson 2001).

Both the single-loop and double-loop learning processes, however, can sometimes run the risk of becoming isolated from the wider systemic issues that may need to be addressed (or corrected) (Robinson 2001). In this light, triple-loop-negotiation may be best considered as an inquiry tool for investigating and working with second order as well as first order errors (problems or conflicts). The third loop plays the role of collective critical inquiry into second order errors.

- ‘Single loop – individuals using their normal socialised routine to negotiate a substantive issue with others but without modifying their governing values.’ (Model 1 outcomes for individual and the collective)
- ‘Double loop – individuals considering the paradigms (beliefs, values and norms reasons, motives, and assumptions) of the self and other parties within negotiations and modifying own governing values and endeavouring to modify governing values of others to succeed. This may involve forming coalitions to influence and reframe the ‘error’ (Model 2 outcomes for the individual or coalition, but can still result in Model 1 outcomes for the collective)
- Triple loop – negotiating the negotiation approach and process by collectively and explicitly inquiring into the multi-stakeholder process itself, individual paradigms (beliefs, values, norms, perspectives, motives, and assumptions) and identifying and possibly changing the governing values of the collective (Higher chance of Model 2 outcomes for the individual and collective)
<table>
<thead>
<tr>
<th>Integrative Negotiation Tasks</th>
<th>Guidelines for Facilitating Interactive Processes</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Task 1: Preparing the process:</strong></td>
<td><strong>Task 2: Reaching and maintaining process agreements</strong></td>
</tr>
<tr>
<td>• Preliminary exploratory analysis of conflicts, problems, social (including power) relations, practices, etc. in historical perspective;</td>
<td>• Positive and fair procedure agreement (ground rules) enhance trust</td>
</tr>
<tr>
<td>• Selecting participants;</td>
<td>• Openness to adapt process agreements as decided also builds trust</td>
</tr>
<tr>
<td>• Securing participation by stakeholders;</td>
<td>• Clear process objectives crucial for facilitating interactive processes</td>
</tr>
<tr>
<td>• Establishing relations with the wider policy environment</td>
<td>• Initial terms of reference may need to change as other issues emerge</td>
</tr>
<tr>
<td>• Initiate discussion and early identification of identity, characterisation and conflict management frames</td>
<td>• Agenda for debate must remain sufficiently open at process level</td>
</tr>
<tr>
<td></td>
<td>• Clarify mandates and decision-making freedom of representatives</td>
</tr>
<tr>
<td></td>
<td>• Maintain the right to withdraw from earlier proposals</td>
</tr>
<tr>
<td></td>
<td>• Create protected space and conditions to prevent disempowerment</td>
</tr>
<tr>
<td></td>
<td>• Ensure information storage, use and access rights are established</td>
</tr>
<tr>
<td></td>
<td>• Be flexible about facilitator choice but monitor task performance</td>
</tr>
<tr>
<td></td>
<td>• Ensure it is clear that process management responsibilities will ultimately rest with those expecting the innovation to work</td>
</tr>
<tr>
<td></td>
<td>• Professional facilitators may need to pass role to participants as outcomes progress to promote process ownership and responsibility</td>
</tr>
<tr>
<td></td>
<td>• Facilitators should be careful not to take over ownership of a process</td>
</tr>
<tr>
<td></td>
<td>• Selectively use tools to enable creativity and reduce uncertainty</td>
</tr>
</tbody>
</table>

• Ensure that conducive conditions for an interactive process exist or can be created |
• Investigate relevant past, current or planned initiatives actors have considered/implemented in effort to improve the situation |
• Identify successes and obstacles in these |
• Show genuine interest in people to build trust |
• Identify those whose issues are ‘at stake’ |
• Identify ‘broad’ areas for interaction without limiting scope for debate to preconceived ideas |
• Ensure institutional space for using results |
• Forge linkages between interactive processes and policy environment |
• Pursue agreement on status of outputs and results |
• Interdependence is a crucial condition for proceeding |
• Select participants who are change minded, imaginative, empathetic, good communicators and trusted by their peers |

• Place emphasis on discussing and making explicit the conflict resolution frames (including the facilitator) |
• Facilitate double-loop exploration of assumptions, motivations and paradigms underlying conflict resolution frames |
### Integrative Negotiation Tasks

**Task 3: Joint exploration and situation analysis (social learning A)**
- Supporting group formation and group dynamics;
- Exchanging perspectives, interests, goals;
- Further analysis of conflicts, problems and interrelations;
- Integration of visions into new problem definitions;
- Preliminary identification of alternative solutions and ‘win-win’ strategies;
- Identification of knowledge conflicts and gaps in insight;
- Emphasis exploration of identity and characterisation frames;
- Emphasise creativity and lateral thinking;
- Emphasise options for reducing uncertainty.

### Guidelines for Facilitating Interactive Processes

- Exploration is starting point for changes in perception and cognition
- Needs cannot be assessed, they need to be discovered through creative learning and negotiation activities
- Problems more useful entry point than needs - easier to deconstruct
- Shift to concrete needs after exhausted problem analysis-exploring
- Ensure exploration is a continuous process – to meet new challenges
- Conflict can be relational or substantive
- Target disturbed relations first before dealing with substantive issues
- ‘We’ vs ‘them’ is usually based on worst of them vs best of us
- Make room for people to ‘let off steam’ to regain mental space
- Ensure group reflection on process dynamics deals with tensions
- Enhance participant skill in giving and receiving feedback
- Explore underlying norms, values and interests at stake in an issue
- Encourage listening to other parties’ underlying interests and goals
- Discuss stakeholders’ fears, goals and underlying interests to s a good means of identifying base interests and aspiration and agreement
- Listening to other parties basic concerns, interests and goals enables easier understanding of respective rationales and facilitates possibilities that exists that satisfy one another’s interests
- Ensure sufficient content input from outside to expand bandwidth
- Build commonalities – common areas of agreement first

**Task 4: Joint fact-finding and uncertainty reduction (social learning B)**
- Developing and implementing action-plans to fill knowledge gaps and/or to build commonly agreed upon knowledge and trust.
- To move beyond blocks in decision-making and knowledge impasses joint fact-finding build required understanding and also relationships
- In conflict situations, this joint fact finding is a negotiation problem in itself
- Reflect on conflict resolution frame

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<table>
<thead>
<tr>
<th>Integrative Negotiation Tasks</th>
<th>Guidelines for Facilitating Interactive Processes</th>
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</table>
| **Task 5: Forging agreement** | • Coherent innovations require new forms of coordinated action within a network of inter-related actors  
• Make people talk in terms of proposal and counter-proposals  
• Facilitators - need to give coincidence a chance in integrative negotiation  
• Need to defining detailed goals and action for the immediate future only, and developing more abstract goal orientation and shared vision in the longer-term.  
• Emphasise options for creativity and lateral thinking and reducing uncertainty – de Bono’s 6 hats  
• Review conflict resolution frames and consider re-framing possibilities of all frames |
| ▪ Supporting manoeuvre: clarifying positions and claims, use of pressure to secure concessions, create and resolve impasses;  
▪ Soliciting proposals and counter-proposals  
▪ Securing an agreement on a coherent package of measures and action plans |  |
| **Task 6: Communication of representatives with constituencies** |  |
| ▪ Transferring the learning process;  
▪ ‘Ratification’ of agreement by constituencies  
▪ Emphasis characterisation frame and identity frame |  |
| **Task 7: Monitoring implementation** |  |
| ▪ Implementing the agreements made;  
▪ Monitoring implementation;  
▪ Creating contexts of re-negotiation  
▪ Reflect on reframing. |  |
| ▪ Ensure regular communication between representatives and their constituencies to prevent ‘others’ rejecting eventual agreements made  
▪ Interactions between representatives and their constituencies must be regarded as separate negotiation processes  
▪ Some say that the key to successful conflict resolution lies predominantly with the willingness and capacity of representatives to negotiate their own constituency  
▪ Need to also ensure that process participants have access to wider policy environment |  |
| **Table 8.1: Tasks in integrative negotiation processes (adapted from Leeuwis 2004)** |  |
Note that the difference between triple-loop-negotiation and triple-loop-learning can be related back to Habermas. Triple-loop-learning and triple-loop-negotiation are both concerned about opening communicative space, however triple-loop-negotiation puts this explicitly on the negotiation table in the third loop. Following Maarleveld (2003), in the third loop when people negotiate how to negotiate, they begin to understand the process of negotiation itself and the behaviours and strategies that inhibit and facilitate it.

The third loop can be aligned with epistemic learning – that is, learning to appreciate how our basic beliefs and world views influence our decisions and actions, as well as what lies behind the words and actions of others, and being able to critically assess their ongoing relevance (Macadam et al. 2002). Until learners progress to this level of epistemic learning they are captives of the ‘cage of prejudice’ (Mackay 1994).

**8.9.2 The triple-loop-negotiation model**

The key concepts outlined above are interrelated components that can be logically linked in a conceptual model for organising and facilitating interactions to design a negotiation process. This reflexive design process can help a collection of stakeholders to consider how they might collaboratively work together to operationalise an effective ‘negotiation process’ for resolving a multi-stakeholder NRM issue.

As outlined in Chapter 6, methodologies such as RAAKS provide an excellent means for inclusive identification of the systemic characteristics of a problem or conflict. Others such as NRM platforms provide models of social aggregation required for moving forward with collective decision-making processes. The triple-loop-negotiation model can improve such models by forming the process management core for the next steps, where through a facilitated process of inquiry, these stakeholders can negotiate and identify a process combining the enthusiasm, creativity, and network building strengths of the stakeholder group. The collective can also decide on the preferred framing-reframing and social learning approaches (or other alternatives) for resolving the identified issue(s).

A primary aim of the triple-loop-negotiation model outlined in Figure 8.12 is for communication within a multi-stakeholder group of the likely processes and outcomes of the three negotiation loops. The intention is for participants to consensually move to conduct interaction in the third loop of the model and thereby achieve sustainable and mutually beneficial outcomes. Once this is agreed, the triple-loop core can then operates as a reflexive and recursive meta-process driver to oversee an NRM negotiation process, and in so doing renegotiate the very negotiation and decision-making process being used. Each of the core components of the triple-loop-negotiation model is necessarily the subject of the negotiation task of reflexively deciding on how the group proceeds. Stakeholders can negotiate which aspects of (re)framing are important (particularly concerning power) and which frames may need to be addressed. Likewise, they can negotiate how the processes of social learning may be employed to progress cognitive coherence and correspondence. Or, if these aspects are deemed ineffective, then they may even decide that using Level 2 or Level 1 distributive (adversarial) approaches to the negotiation process may in fact be the most effective preliminary tactics for matching negotiation styles with other stakeholders then guiding the process back to more integrative (communicative) approaches.
8.10 Further research question

In the next research episodes, it is proposed to investigate this model as a means for presenting the concepts of triple-loop-negotiation, explaining, understanding and indeed instigating it. The aim is to operationalise triple-loop-negotiation by including language and concepts in conversations with participants in the following research episode, particularly in relation to designing and facilitating multi-stakeholder processes. A further aim is to use the language and concepts explicitly in collective decision-making and design processes. A research questions that builds on this is:

1. What is the impact of using the triple-loop-negotiation model as an explicit guide to instigate and facilitate institutional stakeholders negotiating NRM outcomes (in particular the institutionalisation of (NRM) extension) using language associated with the model within interactions?
<table>
<thead>
<tr>
<th>Triple-Loop-Negotiation Level</th>
<th>Epistemological Frames</th>
<th>Action Rationality</th>
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<tbody>
<tr>
<td><strong>Single loop</strong> – individuals using their normal socialised routine to negotiate a substantive issue with others but without modifying their governing values.’ (Model 1 outcomes for individual and the collective)</td>
<td><strong>Positivist, hard systems approaches</strong> – adhere to belief that natural and social sciences are composed of a set of specific methods for trying to discover and measure independent facts about a single apprehendable reality, which is assumed to exist, driven by natural laws and mechanisms (realist ontology). This approach is manifest with different participants and the collective maintaining a predilection for the truth (de Bono 2003).</td>
<td><strong>Instrumental action</strong> – behaviour that involves following technical prescriptions, based on nomological knowledge, in order to achieve certain previously defined goals (Leeuwis 2000), or; using physical causation to gain control (Jiggins and Röling 2000)</td>
</tr>
<tr>
<td><strong>Double loop</strong> – individuals considering the paradigms (beliefs, values and norms reasons, motives, and assumptions) of the self and other parties within negotiations and modifying own governing values and endeavouring to modify governing values of others to succeed. This may involve forming coalitions to influence others to reframe the ‘error’” (Model 2 outcomes for the individual or coalition, but can still result in Model 1 outcomes for the collective)</td>
<td><strong>Critical theory</strong> - assumes apprehendable social, political, cultural or economic realities … that are taken as real (Reige 2003), and claims that any theory of knowledge should openly question its own underlying assumptions (Patterson and Williams 1998). Critical theory is dialectical, and focuses on understanding and reconstructing beliefs individuals hold, and trying to achieve consensus by being open to new interpretations as information and sophistication improve (Guba and Lincoln, 1994). Critical theory seeks to expand the scope of autonomy while reducing the scope of domination.</td>
<td><strong>Strategic action</strong> – oriented towards the realization of specific goals, but the actor recognizes other actors as equally strategic opponents, rather than as ‘objects’ that obey certain nomological rules (Leeuwis 2000), or; using social causation to win (Jiggins and Röling 2000)</td>
</tr>
</tbody>
</table>

Table 8.2: Progressive epistemological frames and action rationalities in the triple-loop-negotiation model
**Triple loop** – negotiating the negotiation approach and process by collectively and explicitly inquiring into the process of negotiation and individual paradigms (beliefs, values and norms reasons, motives, and assumptions) and identifying and maybe changing the governing values of the collective (Higher chance of Model 2 outcomes for the collective).

**Constructivism** - assumes multiple apprehendable realities, which are socially and empirically based, intangible mental constructions of individual persons (Reige 2003), **AND** **Critical Pluralism** – which adopts a tolerant, open posture toward new theories and methods while critically inquiring into them (and avoiding dogmatism) (Patterson and Williams 1998).

**Communicative action** – (based on communicative rationality – see below), occurs when actors aim at reaching agreement or consensus on a shared definition of the situation as a basis for co-ordinating their activities. The notion of social learning is closely affiliated with that of communicative action and improved communication (Leeuwis 2000), or; self-willed social causation (Jiggins and Röling 2000).

Table 8.3: Progressive epistemological frames and action rationalities in the triple-loop-negotiation model (continued)

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Note: **Communicative Rationality** Habermas defines four conditions of discourse in an “ideal speech situation”. It is an attempt to describe the presuppositions that discourse participants must hold before communication without coercion can prosper:

1. All potential participants of a discourse must have the same chance to speak.
2. All discourse participants need to be free to challenge whether what has been said can be verified.
3. All participants need to have the same chance to contribute regarding the issue at hand.
4. All participants need to have the same chance to contribute to the process of communication.

Participants using these rules will produce a rationally motivated agreement or understanding, as opposed to one created through manipulation and coercion (Hemmati 2002).
Chapter 9: Widening the conversation: Inquiring into and negotiating extension nationally

This chapter recounts snapshots from a three year process in which extension policy investigations moved to a national scale. My research aim was to investigate the impacts of explicitly using the language and components of the triple-loop-negotiation model presented in Chapter 8 as an applied methodology to guide the facilitation of multi-stakeholder negotiation processes. Underpinning the application of this methodology was the lessons learned from theoretical considerations such as the constructivism-memetics dialectic introduced in Chapter 4 and the adaptive management considerations of organisational negotiation and change processes introduced in Chapter 6. In this applied research process my intention was to resurface a national discussion on extension, one that has been either scuttled, ignored or non-existent for well over a decade in Australia. From this discussion I hoped to uncover a better context and knowledge to support negotiations on NRM extension within DNR&M.

In my role with the management committee of the Australasian Pacific Extension Network (APEN) I convened a number of events aimed at meeting my charge of representing members’ professions interests (see APEN 2003). My responsibility was to encourage extension policy dialogue amongst key stakeholders as a result of a culmination of concerns and unanswered questions about the changing role of extension policy in Australian rural and regional agencies. Key events and outcomes I coordinated included:

3. Initiation of the State Extension Leaders Network 3-4th April 2005 and participation with the group since this date
4. NRM extension symposium106 held in Toowoomba September 28-29th 2005

A description and analysis of the first two activities are outlined below. The third activity is investigated separately in Chapter 10. Following is contextual information positioning these initiatives within the research journey.

9.1 Moving the conversation to a higher-order nested system

It was becoming patently clear in 2003-04 that DNR&M senior management did not wish to consider extension for NRM in either a policy or service delivery sense, intimating that it was a strategic need but not a political priority at present (see Chapter 7). For the conversation to continue it appeared that either the policy position for NRM in Queensland Government, the senior staff involved or the conversations that these executives were involved in needed to change. With little prospect of influencing the first two options, this research endeavoured to investigate and stimulate nested systems in the national extension workforce with a view to better understanding extension around Australia, and thereby influencing senior executives from State Governments to consider extension policy. Additionally, it was envisaged that dialogue within strategically identified nested systems would enable improved theoretical discourse amongst key stakeholders in the extension policy environment and begin to identify beneficial changes to extension policy and practice.

9.1.1 Context and conceptual link

Drawing on the concepts from intermezzos II and III in an organisational change sense, a nested extension system did not exist in DNR&M nor did the possibility of forming of an effective coalition (de Souza Briggs 2003) to operationalise a triple-loop-negotiation process with key decision-makers. Therefore I decided to use my connections with APEN, the national professional body for extension to take the investigation, and hopefully negotiation, up the holarchy (or hierarchy of nested systems – following Koestler 1967) to a higher level of aggregation. Understanding what was happening with extension policy in other Australian States would better identify the role and practice of NRM extension, and indeed, its role in DNR&M.

This research episode spanned a three-year period. Conceptually speaking, in 2003 it was unclear how best to initiate the interactions around extension policy, and the workshop described below testifies these earlier misgivings (Section 9.1.2). The differences and tensions within the extension system were a key impediment to constructive interactions through this episode. The entry point and conceptual framework for facilitating effective negotiation processes has taken considerable time to develop, leaving little capacity to test it.

Starting 2003, my attempts to operationalise triple-loop-negotiation amongst key stakeholders in the extension system nationally, were very challenging. While participants at the 2003 event recognised the need for higher-order policy negotiations to occur, there was little advance (from the workshop or literature) on how this should occur. However, as the second phase of this episode ensued and preparation for the forum in 2004 got underway, the increased maturity of the triple-loop-negotiation model (intermezzo II) proved to be a more systematic conceptual basis for organising and facilitating extension policy interactions. Specifically attention is paid to the ability of components within the theoretical framework developed in intermezzo II to aid thinking about, explaining, understanding and facilitation of multi-stakeholder negotiations in the extension system, namely:

1. Triple Loop Negotiation - Process Management (including leadership and facilitation)
2. Uncertainty
3. Action Science
4. Framing - Reframing
5. Social Learning
6. Enthusiasm
7. Creativity
8. Network building

Question this episode addresses

In what ways does the triple-loop-negotiation model help as an explicit guide in instigating and facilitating effective extension policy outcomes using language associated with the model within interactions?

Following is an autoethnographic account of four significant phases in the quest for inquiring into, negotiating and endeavouring to influence (NRM as well as agricultural) extension policy discourse in Australia.
Trevor Duff called and said: “Greg, I remember when we were working together in DPI&F, a couple of years ago and you mentioned to me that you were very interested in extension policy, and your concern about the integration and organisation within extension.” “Yes”, I said, suddenly interested. “Why, what’s going on?” I knew that Trevor had been active in APEN for a couple of years and I remembered our conversations about the issue we both perceived within extension agencies in Queensland. Then Trevor said: “Well, we were talking about you in APEN and wondering whether you might like to join the Management Committee to progress some action on the policy front. In our Strategic Plan, that is one area that we have been acknowledging for some time that needs to be addressed. We need to have a better representation of our members’ interests on one hand, and on another we need a more rigorous inquiry into what is going on with extension policy within agencies across Australia. Are you up for the job, for two years?” Almost before he had finished the question I found myself saying: “Yes, that would be great! I have been trying to involve myself in that within DNR&M. A broader focus on extension would be fantastic!” As I agreed to accept his offer my mind was already racing with the possibilities that such an offer presented. This gave the chance to take the conversation that I had been floundering with in DNR&M to a higher level. The possibilities for investigating the institutionalisation of extension within NRM agencies might also be possible. I was quite excited at the prospects.

As I said to John James some weeks after commencing the role: “Getting started with the APEN Management Committee was at first quite challenging. There is quite a lot going on, there is a wide range of network coordination and support roles, each with their historic reason for being. But while most on the Management Committee seem consumed by being recognised as the peak body, supporting professional development and having an effective network of extension practitioners, I see a possibly more fundamental issue, and that is that the deeper reasons for agencies to support extension somehow seem to be eroding. Also the role of extension for NRM seems to be not yet clarified. Maybe we need to surface this in a national discussion among the extension folk.” John’s immediate reply was: “Why don’t you go and speak with Jeff Coutts, as an ex Management Committee member with long term extension policy interests he has some similar leanings and might be a good person to bounce ideas off. He just might have some access to funding too…” I said: “Yes, I will go to see Jeff next week.”

This was the first time that I had been on Jeff’s extensive back veranda, and while quite taken with the parrots and lorikeets in the eucalypts overhanging the railing, I was more interested in his response to my suggestion about initiating a national extension policy discussion. “That’s a great idea!” he exclaimed. “The time is ripe to promote some deeper thought about extension policy and where it sits in agencies. This is especially in the scope of the Cooperative Venture. But what did you have in mind for getting this started?” Then I tried to speak to Jeff about my PhD work and considerations about negotiation and planning, then conducting this interaction as a negotiation process. I tried to explain: “I have been developing a perspective that a key issue with extension is the disparity both within the extension discipline and also amongst extension funders, based on writings that Cees Leeuwis has been doing, in cases such as these it may be helpful to consider the interaction as a negotiation process, and work with the differences in stakeholder perspective, as well as the commonalities.” “But how would you do that?” Jeff queried. “That I am not real sure on Jeff, but am keen to scope it out”, I offered, not confident in the best way to integrate triple-loop-negotiation theory with the extension policy proposition we were discussing. “I am not sure what you will think but will try to describe it, Cees Leeuwis speaks about planning participatory activities as negotiation processes and I have built on these ideas and read quite a bit of negotiation theory to see that in cases like extension policy in Australia, where
there are multiple positions and perspectives on extension, we somehow need effective means of enabling a negotiation process among these stakeholders to arrive at a resolution as to what the current dimensions of extension are and how it is matched with stakeholder needs. But taking a step back from this, how do we conduct this negotiation? Maybe it is the role of some innovative and dynamic facilitator, But I think that even then, many of the players will still not be satisfied. If the facilitator supported a process where stakeholders ‘negotiated the negotiation process’ then there would be more ownership and commitment to these same stakeholders contributing to negotiating extension policy, both within the discipline and with the funders of extension.” Finally I paused.

Jeff seemed unsure: “How does this differ from participatory action research and processes like that?” Jeff asked. “Well from the one hand”, I suggested, “It is about negotiating better participation, but from the other hand it is about negotiating how participants work through and resolve some of the differences that stand in the way of getting things done.” Jeff still seemed a little unsure, however he said: “OK, lets give it a try. You know, maybe it applies to the new term that is being used by a few now. Capacity building. This term is promoted as a key function in building social capital as well as natural capital, etc. but I see some key issues in how it inter-relates with extension. Is it extension and capacity building? I think this is one of the key negotiation points. We need to begin with a discussion paper to float the public and professional benefits of extension and capacity building.” We then agreed on also developing an invitation and draft agenda for the APEN Management Committee and other interested stakeholders. As I drove back home I pondered the prospects of diving into negotiation pre-emptively rather than first confirming the issues and positions. In a phone conversation with Jeff and then John James and Greg Cock (President and vice-president of APEN) next day, I confirmed that we needed to start small by looking within APEN. I agreed with John’s suggestion to question the APEN Management Committee about this by email. Petro Arnold from New South Wales further confirmed this in his email response, writing: “As this is the beginning of the process I think it will be good to only have a smaller cast there to get the skeleton of the framework together and then get wider input once people have something to focus on, the input from a few external people will help validate our thoughts in the first instance and help ensure we have agreement on the foundations.”

Further to these interactions it was then agreed through email that an extension policy workshop should target the following aims:

- To explore the implications of new extension research on APEN’s strategic direction and the support and services it provides for members
- To explore APEN’s role and effective processes in providing input to government and R&D Corporation policy and funding strategies as they are directed towards facilitating capacity building and change in rural and regional Australia
- To progress the longer-term aim of APEN to develop clear policies on extension and facilitating capacity building and change in rural and regional Australia.

After also negotiating budget and venue options it was decided that participants for this Sydney workshop would be: the APEN Management Committee; project leaders within the Cooperative Joint Venture for Human Capacity Building; other interested APEN members, and; invited R&D Corporation and Government agency representatives. I was optimistic about developing a firmer position within APEN of its role regarding extension policy, however I continued to struggle with the entry point for progressing APEN’s position in a wider multi-stakeholder negotiation process. I also felt that my aims to progress this as a participatory or inclusive process from the outset, had been sidelined by the APEN Management Committee, but considered that the small steps’ option may be wise.

The workshop held 23rd July 2003 in Sydney ran very smoothly with a shared positive enthusiasm for sharing perceptions on issues confronting extension policy in Australia and
the need for moving toward an agreed position on extension policy generally. While a draft extension policy statement was discussed at the workshop it was generally regarded as a starting point rather than an agreed position. At the workshop there was a small undercurrent of dissension about the notion of extension and that of capacity building. Bob Macadam was in the throes of preparing a paper for RIRDC on Capacity Building (Macadam et al. 2004). While his view that extension was subsumed by the broader concept of capacity building, he did not argue the point strongly at the workshop. The workshop was a preliminary triple-loop engagement and served very well as small ‘design conference’ providing a mandate and scoping material for organising the larger extension policy workshop.

An evaluation process of the 2003 Extension Policy Workshop showed that the majority of participants believed the event to be an effective step in the development of an APEN position on extension policy. Workshop participants considered that this needed to be contextualised however, alongside a character description of good extension practice. A key resolution from the workshop was to conduct a wider extension policy forum in 2004.

**Tasks/Actions**

1. To develop position papers on (and put on website) by Nov 2003:
   - Good extension practice – principles for (Gerry Roberts)
   - Extension as a discipline (defining and understanding) history, current research, principles (Neels Botha)
   - Extension’s relationship with capacity building – link with definitions and concepts in Bob’s project (Bob MacAdam)
2. Plan an advocacy/participatory policy development program through Nov 03 to April 04 – Seminars in respective states with senior managers of organisations
3. APEN convene a national extension policy summit - target audience is “extension stakeholders”. By this time APEN will have a very draft policy document that has been informed by:
   - Co-operative venture projects (APEN members are leading these)
   - APEN policy workshop
   - Survey and focus groups
   - Position papers
   - Endorsed and discussed at National Forum by the members
   - AAAC project to help with recognition of the extension profession (presented at Summit)

Figure 9.1: Action plan outcomes and from National Extension Policy Workshop 23rd July 2003 (Leach 2003)

In the following autoethnography, the entry point is a number of conversations that were quite instrumental in how the national extension policy forum was planned. Key discussions are reported here to signal turning points in planning this interactive negotiation process.

**9.1.3 Autoethnography: Planning a National Extension Policy Forum**

**Conversations with Malcolm Letts (September 2003)**

Malcolm Letts dropped by my office on his way home to meet with me about extension policy and the next steps toward a national forum on the same. My intention was to query

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107 Malcolm Letts became the General Manager for trade in DPI&F. He has had a long-standing interest and influence on extension practice and policy through a number of national bodies, as well as his considerable experience in managing highly successful Property Management Planning extension programs (NLP 2000). Although Malcolm’s advice and support was beneficial, he was unable to participate in the forum due to a job change.
him on the prospects of progressing a national discussion on extension and where he might see a forum fitting.

“I have asked you over Malcolm because I respect your perspectives on extension and would be keen to get your thoughts on APEN planning and progressing a national forum?” I ventured. At first he was dubious that we were considering the policy dimensions of extension in a forum, and said: “Agribusiness and social science professionals are not good at policy development. And the key challenge here is to separate self-interest from the reality that extension can make a difference.” He went on, “APEN could instigate further discussions by asking questions like: How can extension influence policy?, as well as; How can extension benefit society? One thing that would have a big impact in this area is a rigorous analysis of the cost-benefits of different extension approaches as compared with other methods or instruments. Return on investment is always a good bargaining lever. This all hinges off extension’s baggage of being less accountable than research. While we might be getting good outcomes with landholders, it is often difficult to quantify. It is a complex area because extension practitioners feel a part of the community rather than just an agency employee. In some ways they have a triple accountability: to their employer; to their client(s), and; to their social networks.”

We then spoke more about the proposal of a national extension policy forum. “Malcolm, we are recognizing different levels relating to extension policy: policies that guide APEN’s strategic planning, and how to influence the policy development process to encourage inclusion of good extension practice in change projects.” I suggested. Malcolm was quick to add: “And also, what many in management need, is operational policy for designing extension programs.” He was emphatic about this and added: “I am asked regularly how to design an extension program to achieve a certain outcome, and we just do not seem to have any good current approaches to doing this.”

“The problem I had have in DNR&M has been the NRM dimensions of extension”, I said, in an open statement, rather than pre-empting his response. “Well, DNR&M in my view, can pursue more industry led accountability standards on sustainability. It’s like anything, if you are clear on the outcome desired then you can design back from that. NRM extension could be institutionalised through designing programs that identify accountabilities with landholders for sustainability.”

As we finished our conversation Malcolm suggested names of people I should speak with to help scope the proposed national forum. Among these names was Tony Gleeson. Before meeting with Tony however, I met with Jeff Coutts and Darren Schmidt again on Jeff’s veranda to get the APEN role straight.

Conversation with Jeff Coutts and Darren Schmidt (November 2003)

Darren had expressed his interest in helping progress the extension policy process in Sydney, July 2003. He began the discussion saying: “Love your veranda Jeff – Excellent place to meet. So you think that extension needs to be advanced using capacity building language?” Jeff was affirmative, saying: “One of the big issues is from where we sit, what are the main barriers limiting extension’s role in effective capacity building? The role of APEN in addressing this really needs to be discussed. So a key question is: In what way can APEN most effectively support capacity building?” “For this, we need an agreed line on capacity building, and a definition of APEN’s position representing members who are employers, practitioners, clients and beneficiaries.” We agreed to consider the development of a websurvey in the lead up to the forum to get a better position on members’ perspectives on policy. As we parted, I added: “Also we will need to arrange a meeting early next year to plan this further, maybe after I meet with Tony Gleeson.” Jeff and Darren both agreed.

Darren was the editor of the ExtensionNet, the APEN newsletter, http://www.apen.org.au
Preliminary conversation with Andrew Campbell (December 2003)

I knew Andrew would be a key figure in this process. Having previously written about extension policy with Jeff and Jock Douglas, and recently about Landcare and a national extension framework in the Australian Financial Review (November 2003) he was surely an interested player. That combined with the fact that he was Executive Director of Land and Water Australia, made him a very influential figure indeed. I was not sure though how to engage Andrew in an effective way, without wasting his time, and yet still providing ample space for his input and feedback. In any case, I planned to both whet his appetite and gauge his interest through a telephone call and then follow this up with a more substantive proposal as supported by a growing legion of supporters early in 2004. So my first step was a telephone call, but he was extremely hard to catch. Eventually he called me back.

“Hi Andrew I have been chasing after you to garner support for energy that is being put towards extension policy in Australia. I am in the APEN Management Committee and we are keen to build on things like the article that you wrote for the Financial Review last month, to generate some action into the extension policy debate. I have been working with Jeff Coutts and quite a few others to move this along, and we were just wondering whether you would be interested in being involved in some way?” “Yeah, sure!” Andrew responded: “But just what do you have in mind?” Then I spoke with him for a while about the thinking that had been evolving from APEN discussions, the policy workshop in Sydney and Jeff Coutt’s veranda (among other sources) and the developing idea of progressing a national summit. In wrapping up Andrew said: “Sure, if you can send me a proposal then we can work off that.”

Conversation with Jeff Coutts (December 2003)

Not long after speaking with Andrew, and based on previous discussions with Jeff about triple-loop-negotiation I wanted to discuss with him the context and possibilities of facilitating a negotiation process in the extension policy arena. I had drawn up a plan and wanted to talk him through it (aiming to enter the third negotiation loop). We met under a fig tree at a coffee shop on the University of Queensland campus. “Jeff, I just wanted to run these thoughts on a negotiation plan by you”, I said (see Figure 9.2). Jeff was very interested and optimistic, saying: “This type of process is going to be necessary when it comes to the crunch of tackling the difficult issue of obtaining agreement on something like a National Extension Framework, and the APEN policy to support this.”

We then scoped the concept of a summit or forum to bring stakeholders together to progress extension policy negotiations. Jeff said: “This needs to be an event that people want to be at, they can pay for themselves. I reckon that we go for a conference in Canberra. That has the right political metaphor. Policy happens in Canberra doesn’t it?” We agreed that funding should be possible through Research Development Corporations but that a core of people needed to be there, and also to be involved. “I also contacted Andrew Campbell on the phone and sought his interest”, I added. “He seems very interested but hesitant in our ability to influence the future of the NRM regional arrangements agenda. I told him we can send him a plan once I have spoken with you and a few others”, I proffered. “In any case, he is a necessary player to have involved in this”, Jeff suggested. As Jeff and I parted we also resolved to talk further with Malcolm Letts about this plan. First though, I needed to meet Tony Gleeson and inquire into his perspectives and endeavour to enrol his support.
Negotiation Plan for National Extension Policy Process

1. Realisation of a multi-stakeholder issue – APEN, Joint Venture and others

2. Initiating a negotiation process
   a. Communication of issue to (key) constituents
   b. Proposing a negotiation process
   c. Enrol ‘willing’ participants in workgroup to plan and implement a negotiation process
   d. Propose (adaptive) meeting schedule
   e. Advocate that this is likely to be a series of negotiations rather than a one-meeting affair

3. Preparing the process
   a. Develop a negotiation plan with workgroup – triple-loop negotiation to agree on key issues and ‘decide how to decide’
   b. Reaching and maintaining process agreements
   c. Develop considered list of prospective participants in policy summit process (maybe 50)
   d. Working group members conduct prior interviews with prospective participants to begin dialogue-learning, thinking and data collection;
      i. Inquire into current position - use of ‘extension’ and issues
      ii. Communicate developments in extension, current research and APEN’s role
      iii. Inquire into future needs for extension
      iv. Inquire into identity, characterisation and decision-making frames
         • what is your identity in the extension system?
         • how do you characterise others who create issues for extension?
         • how is decision-making about extension conducted?
      v. Identify critical uncertainties – What are their gaps in understanding re extension
   e. Assemble this information to develop a checklist of issues (and opportunities) at stake, help prepare the process and to propel negotiations
   f. Re-communicate with participants to secure interdependency and ‘safe space’ for negotiations and the role of ‘interested’ facilitators

4. Plan National Extension Policy Summit - Suggested inclusions;
   a. Intro - Focus on learning, negotiation, decision-making and networking
   b. Introduce framing-reframing – what problem are we really trying to solve? How should we creatively think about problem to make it more solvable?...identity, characterisation, decision-making frames
   c. Collaborative aim – discover commonalities and resolve differences
   d. Present data collected so far – positions, issues, needs and opportunities
   e. Further identification of agency/participant interests on the role and future for extension - exchanging perspectives, interests, goals
   f. Present APEN + Joint Venture interests on the role and future for extension – based on current research, findings, policy process, etc.
   g. Identify gaps in understanding. Question assumptions without inciting resentment
   h. Collective discussion/process to fill these gaps
      i. Discuss common interests and identify the common basis for extension (policy) in rural and regional Australia – towards a national extension framework
      j. Discuss divergent interests – Differences and Conflicts are the source of learning and creativity!! Identify processes for dealing with these - ‘trading and package deals’
      k. Plan for how to deal with these at the summit and beyond
      l. Recommend key roles for APEN as the peak body for extension – basis for APEN policy
      m. Ask the question “What can you do?” At the summit we have explored what we prefer – Reflect learnings and negotiations back on agency extension policy (communicating with constituency)
      n. Plans for connecting with the wider policy and political environment

5. APEN + Joint Venture support and coordinate follow-on from Extension Policy Summit
   a. Plans for working through (further negotiating) divergent interests
   b. Communicate summit outcomes through media, agency and community networks
   c. Develop and communicate APEN policy in line with summit outcomes
   d. Develop plans for re-negotiation of extension in rural and regional Australia

Figure 9.2: Draft negotiation plan for instigating extension policy in Australia (Leach 2003a)
Conversations with Tony Gleeson\textsuperscript{109} (28th Jan 2004)

I was eager to follow Malcolm’s earlier suggestion on engaging Tony, particularly in light of the Australian Values - Rural Policies national symposium he assisted with in Canberra in 2000. I gave Tony a rundown of events that had occurred thus far in the extension policy discussion, hoping to demonstrate the enthusiasm that a number of us had for facilitating proactive negotiations. I said: “Tony, this discussion has been brewing for quite a time. In 2000 at the APEN National Forum, a number of us were attempting to build on the idea from Jeff Coutts, Jock Douglas and Andrew Campbell that we progress toward a National Extension Framework to inform extension policy. This didn’t garner the enthusiasm in the right way however - we did not organise anything concrete. Then with the APEN Management Committee we agreed to progress interactions on extension policy and I convened an extension policy workshop in Sydney, July 2003. From this forum there was support for progressing a wider conversation nationally. Andrew Campbell’s article in the Australian Financial Review in November spurred this along, so I put a proposal to Jeff Coutts and APEN that we run a national extension policy forum in 2004. I was just wondering whether you were interested in being involved in this process?"

Tony responded by saying that: “Extension suffers from the view that it is always a ‘tag on’ to research and a policy forum for extension is a risky venture. I mean we have to face it. ‘Extension’ is not sexy, ‘APEN’ is not sexy, and ‘Policy Development’ is certainly not sexy! I think we need to take the people approach to NRM. A focus on people is much more powerful than a focus on agriculture, or a move to NRM. Values for rural Australia are important, and these need to be a focus when you are talking about extension.” I asked him if he was available on February 3\textsuperscript{rd} to talk further about a national extension policy forum. He said: “Yeah, I am interested, but I’ll have to take a look [at my diary]."

Conversation with Jeff Coutts and Malcolm Letts (February 3\textsuperscript{rd} 2004)

While I contacted quite a few people about a planning meeting, and all were interested, it was only Malcolm, Jeff and myself who were able to attend. Even then, Jeff had an issue that morning that kept him at home. “I’ll try to get Jeff on the phone” I said to Malcolm after I had explained that Jeff was caught up. “Hi Jeff, we’ll put you on speaker-phone so we can have a virtual planning discussion.” Malcolm’s first issue concerned the point of entry. “We need to sort out straight away the perspective that this could be seen as self-serving, it needs to be based on genuine demand. We need to consider the current reality where there are currently gaps in the one-on-one extension scene, and yet Departments are going into compliance and community consultation rather than extension. There is also a perceived issue of cost-shifting with the regional NRM arrangements where this 1.2 – 1.5 billion dollars from the Commonwealth\textsuperscript{110} is accessible for ‘capacity building’. If you call your project capacity building it will be funded. Therefore the term extension is an issue." “Yeah” said Jeff, “But perceptions are not reality and people like Warren Straw have data to show the value from investment. Extension needs to be seen as part of the whole – This is where things have gone wrong in the past." “That’s for sure”, said Malcolm, “However pragmatic choices are required for where extension dollars are committed. We need to accept that a mixture of logic and politics underpins the regional NRM arrangements but step above this to make accountability for extension more evident. And challenge the pathways of where money is currently directed, because at the moment it is difficult to locate the ‘point-of-truth’.”

“But let’s look at the decision-making process in the system”, I suggested. “In Government and the regional arrangements for example, logic, politics and cooperation are always balancing off each other. The rationality underpinning decision-making in the system needs

\textsuperscript{109} Tony Gleeson has been well renowned in extension and rural development circles over many years for his good overview of national processes and insights into rural policy

\textsuperscript{110} National Action Plan for Salinity and Water Quality and the Natural Heritage Trust II programs
to somehow align with and guide policy directions for extension." “Fully agree”, said Malcolm. “And with this decision-making process we need to working toward an extension program planning process, complete with criteria for evaluating investment against an idea. Criteria that apply at higher and lower levels, for financing, resource allocation, evaluation, continuous improvement and innovation, and also indications of improvement”

“Wow”, I said, “There are so many angles to think of when considering extension policy. Who else do you think we should talk with to contribute broader perspectives?” “It would be good to get together some case studies from different view-points”, said Jeff, “People like Tom Dreschler that you are working with in DNR&M.” “Also Kathryn Galea in the Condamine Alliance”, suggested Malcolm. “She has mentioned a number of times the issues in the regional arrangements with the future of extension.” Then we brainstormed a list of stakeholders including Federal and State level departments, APEN, National and State Farmers Federations, Meat and Livestock Australia, Dairy Australia, Cotton, Service Industries, Local Government, youth and urban groups.

A key result from this meeting was the greatly increased focus of the possible nested systems within a negotiation process. Malcolm said: “Really, the more we have been talking the more apparent it has been becoming that there are too many concerns within the extension discipline itself to go headlong into a big national summit. We need to reach some level of agreement or a better position than we currently have ‘within extension’ before interacting with the key decision makers ‘about extension’. Probabaly by this stage it was only me who was concerned about continuing with a negotiation process. We agreed on the following purpose and timing.

### Purpose - The purpose of the summit (process) is to bring together and advance the best understanding of the policy element of extension in rural and regional Australia. This includes the role, funding, management structures, training, evaluation and cross-institutional cooperation issues. Secondary purposes are to;

- draw on outcomes of joint venture research to underpin extension policy and management and further negotiate the role that the joint venture needs to play,
- negotiate APEN’s role as the peak body for extension in Australia in the eyes of the major funders and managers

### Timing - It is proposed that the summit should be conducted at two levels and at successive events or stages.

Stage 1 (Two days, in Canberra 21-22nd July 2004): A low exposure 'in-house' gathering of key stakeholders & deliverers of extension (type) services in Australia to;

a. Scope the Australian extension environment in 2004
b. Consider recent developments/research in extension
c. Negotiate relationships for improved interaction, delivery and outcomes for extension
d. Commence the process of developing a framework for improved collaboration, cooperation and complementarity between different players
e. Plan for supporting practitioners working with rural and regional Australians to facilitate the social changes needed for sustainable landscapes and communities

Stage 2 (One day Canberra in March 2005): A high exposure national forum with emphasis on the aims of;

a. Securing cooperation/collaboration and coordination of extension efforts is supported in the public arena and at a policy/political level

Figure 9.3: Proposed purpose and timing of a National Extension Policy Summit (Leach, Letts and Coutts 2003)
Then I mentioned Tony Gleeson’s support, but concern for the perspective that extension, policy and APEN are not sexy. “Yeah we really need to think of a good title”, said Jeff. We agreed to consider this further. We resolved to think of a good title, add this to a proposal document complete with my negotiation plan and send this out to the considerable list of extension stakeholders that we identified, inviting their interest and further participation. So, Jeff and I did this and sent out the invitation late afternoon on the 5th February.

**Development of the Extension Policy Working Group**

Andrew Campbell responded late that same night after having given considerable thought to the proposal. He made a number of salient points that were beyond the scope of myself and possibly of Jeff and Malcolm. These points helped set the stage for the development of a working group and the planning process to follow. Following are excerpts from his email:

> “There is clearly a lot of thinking and focusing to be done here. If the aim is to develop a new national extension framework and get it adopted, then the process outlined here has no hope. But neither is it a good process for doing the prerequisites for a comprehensive policy development process. There is great emphasis here on negotiation - but between whom and about what? Very few extension decision makers are listed here - for example no-one who is directing the NAP/NHT extension effort and deciding how the hundreds of people employed will be resourced, assisted or guided.

> Occasionally there are tectonic plate shifts in the political context that enable wholesale changes to policy at state and federal levels, but they are rare and unpredictable. I agree with the idea of a meeting with a smaller group this year to plan a larger event next year. That could be the start of a 5-10 year policy process. The decline of conventional extension and the rise of regional delivery in the NRM context have been happening for more than 15 years and their momentum is inexorable. At best we could achieve a bit of course correction over the next 2-3 years, especially if there is a change of government.

> The job gets easier if it is better focused. For me the main game is not the full scope of extension, but non-coercive means of achieving behaviour change at farm scale to tackle issues that demand coordinated action at catchment or landscape scale. That's the area where there is market failure - where the increase in private consultants and privately-funded advisory services is not, cannot and will not make much of a difference, especially as the land users who most need to change are likely to be often the least interested/ able to change. It is also the area that intersects with large amounts of public money and the push to regional delivery - a massive national experiment that is not being learned from very well. So a key element is policy instrument choice - when do policy makers reach for the extension toolbox and when do they go for other instruments that might more directly influence behaviour change, and what is the decision tree that helps them get the instrument mix right?

> Even with this more narrow scope, you would still need names (key state agency types and regional leaders). The relevant working groups under the Standing Committee of the NRM Ministerial Council are important: especially those of capacity building, science and information, and M&E. So are key NGOs and industry.

> But if you want more than incremental change you need to introduce new ideas and new thinking, which is probably more likely to come from outside the sector and existing players. Identifying some new ideas and persuading research funders like the CVCB to look at them may be a more realistic goal in the first instance than rewriting extension policy in Australia. That may mean looking carefully at other fields that also rely on achieving behaviour change among people at a range of scales” (Campbell 2004).

Figure 9.4: Excerpt from Andrew Campbell’s email response to my invitation to initiate planning for a National Extension Policy Summit to be held in Sydney 21-22nd July 2004
All of a sudden, communications came alive. Andrew’s critical views were shared in emails and telephone conversations with those involved thus far, which surprisingly spurred people into action. It seemed that everyone wanted to respond to his challenges and try to make the process work. Numerous telephone calls followed these emails and within the space of one week a list of names was emerging for the members of the working group. Included in the group were: John McKenzie (Manager – Cooperative Venture for Capacity Building), Jeff Coutts (Evaluation Consulting), Sue Vize (Murray Darling Basin Commission), Gerry Roberts (DPI&F), Malcolm Letts (DPI&F), Greg Cock (PIRSA South Australia), Tony Gleeson (Research & Consulting), Jess Jennings (University of Western Sydney), Kathryn Galea (Condamine Alliance) and myself.

The initial meeting of this group was face-to-face for a day at my workplace, NRSc, Indooroopilly in Brisbane (5th March 2004). The agenda had been negotiated with Jeff mostly but freely circulated for additions. The interaction at the meeting was dynamic from the outset and it was obvious that people were involved because they wanted to be there. Each member (myself included) was unsure of the point of entry to beginning the process so I simply asked: “We are making the institutional space to enable productive conversations and outcomes – If I had one thing to ask it would be that we make this a safe space. Safe for free expression and input. Could we each please take our time to describe what we hope for from this extension policy process – for ourselves or our work?” This proved to be quite advantageous with some long-standing relationships repositioned for this extension policy activity and new relationships comfortably initiated within a relatively safe space.

It was interesting to explore the different enthusiasms that drove these people to be involved. Jeff viewed his interaction quite broadly, saying: “Due to my recent movement into consultancy from the Rural Extension Centre I have both a somewhat academic interest in extension policy, but I am also obviously driven through the Cooperative Venture project and consultancy. I also did my PhD in extension policy some years ago and am interested to take this further.” Tony conveyed to the group saying: “My interest in extension policy is quite academic, but it builds on my enthusiasm for rural values and their expression in contemporary policy affecting rural Australians.” Kathryn was coming from the developing area of the regional NRM arrangements saying: “Well, from the Condamine Alliance’s perspective, we are involved in a substantial NRM planning process involved in which is going to be a considerable area of effort devoted to capacity development and practice change. Given my history as a lecturer at Queensland University and continuing work now in the Alliance, I see extension as being a very crucial area for enabling these NRM plans to come to fruition. I am involved in the Regional Group Collective coordinating much of the regional body activity and they see this as a significant need in the near future.” John McKenzie was from a different angle again and introduced his perspective by saying: “As manager of the Cooperative Venture I have a major interest in this activity as it underpins some of the venture’s research, the stuff that Jeff is doing, and we are involved from a number of fronts in complementary work.” Gerry Roberts was on the phone for some of the time and said: “Well from my recent research, where I did a Delphi with a number of extension practitioners, there is a key need to support a framework that enables good contemporary extension practice to be institutionalised and to be implemented. I do not have any fixed expectations but am very keen to see what emerges from this activity.”

While other members were unable to participate in the first meeting, their interests in extension were determined later: Jess Jennings is completing his PhD in agricultural extension, in the APEN Management Committee and keen to see better practitioner representation; Sue Vize from her position with the Murray Darling Basin Committee sees a considerable organising need in the pluralist extension environment; Greg Cock as Vice

I had 1370 email exchanges with EPWG members and other interested extension stakeholders leading up to the forum. Phone conversations were also very frequent.
President of APEN wants to identify APEN’s policy role in extension, and; Malcolm Letts as a General Manager in DPI&F wants to see a better extension program planning methodology.

This conversation I thought, quite nicely set the stage for negotiating the aims and boundaries of the forum, which came about through reasoned discussion and shared communicative space. Jeff took the whiteboard marker at this point and rallied the group, saying: “So can we agree from our conversation thus far that the purpose for the Forum has boiled down to:

1. Draw on outcomes of new research/thinking in relation to extension and pertinent institutional relationships and linkages in Australia;
2. Scope out needs, issues and options to improve the funding, governance and delivery of extension (and related processes) across sectors in Australia?”

“Are we happy with where we have come to with this?” I asked. Everyone conveyed his or her approval. The meeting continued very positively with little disagreement, conflicting epistemological positions or obvious differences in strategic agendas. The group was very productive and agreed on dimensions of the extension policy forum presented in Figure 9.5.

**Developing a Website**

Jeff suggested: “We should get Ben Coutts (Jeff’s son) to design a website. If you interact with him with the content, he can certainly make it function well and look good.” I provided Ben with some of the draft materials and the papers prepared by MacAdam (2003), Botha (2003) and Roberts (2003) as arranged at the Extension Policy Workshop in Sydney 2003. Through the next few days Ben developed a very useable site that received considerable input prior to the forum with several participants uploading essays and briefing papers as well as others providing relevant published articles.

**Teleconferences**

The working group did not meet again face-to-face until the night before the forum on the 20th July. All interim communications were through six teleconferences (5th March, 2nd and 16th April, 4th May, 15th June and 9th July), numerous email and phone-calls and individual meetings with group members. Teleconferences ranged from just over an hour to two hours in duration and proved to be a very productive addition to the email and individual telephone correspondence. The length of these teleconferences enabled reasoned deliberations to take place and considerable time was often spent debating a particular topic.

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112 The indicators for this retrospectively were the very positive comments that came from Coutts, McKenzie, Gerry and Kathryn in the days following the meeting and the collective enthusiasm that was built through a shared ‘issues frame’ and shared extension ‘meme’.

113 At the time of writing the thesis I was heartened to see that the website is operating at http://www.couttsjr.com.au/forum/ and includes briefing papers and essays leading up to the forum, as well as forum outcomes including a draft National Extension Framework. The agreed plans were to transition this site into the next phases in the lead-up to the National Extension Policy Summit.
The overall aim of the extension forum; is to target outcomes moving us from the Current Situation (how change happens on the ground in rural and regional Australia) to an Improved Situation

Key outcomes from the Forum;
1. Operational Guidelines for extension – stronger underpinning of decisions made and criteria for designing & using extension processes
2. Policy Framework for extension - Rationality underpinning extension processes and linking extension to other policy instruments
3. Improved cooperation/collaboration
4. Better guidance at different levels
5. Better delivery at community level

Who should be there, where and when;
1. Boundaries of forum and discourse – people in landscapes: (a) Core - People with passion who influence delivery/funding of extension, e.g. Federal Government; State Government; NHT; Regional delivery; RDCs; Larger private agencies; (b) “Expanded” - wider input–challenge–creativity–inter-related, e.g. Treasury/Finance; Community services; Adult learning/Education professionals; Relationship marketing professionals; (c) Number of participants – 40 (30 Club with passion, influence, enthusiasm and thinking-focus and 10 ‘targeted invitees’)
2. Venue – Little Bay, Coogee, Sydney
3. Cost – participants pay own way + subsidisation through Cooperative Venture
4. Date 21-22nd July 2004

Key facets of the forum;
1. A mandate needs to be established (innovative short presentation!!) e.g. Kathryn Galea (regional arrangements), Tom Dreschler (compliance+planning), Andrew Johnson (capacity building).
2. Web-based interface with participants and other interested parties
3. Invitation needs to be worded sensitively – if you have passion and want to be there
4. Suggested briefing areas necessitating why extension needs to be addressed: Changed arranged for investment and service delivery; Changing structure and demography of rural and regional Australia; Urban peri-urban interface; Insufficient understanding of ‘market failure’; Trends in current extension practice; Trends in extension theory; Educational policy – leading to ‘unskilled’ or ‘content free’ extension staff; Overview perspective paper – unease in the extension system; Also look for non-ag non-nrm case studies e.g. GBRMPA
5. Tell contributors/participants to write a 1-page essay of the key thing that makes them uneasy about extension in Australia - Promote discussion on briefing paper
6. Ground rules – Best to proceed with givens disputed and agreed before 21-22 July (time not wasted)
7. Possible outcomes: How to select tools to achieve outcomes – Negotiate policy mixes for different situations; Influencing the psychology/principles of legislation; Influencing policy of education system for practitioners; Inform other element of policy and practice – negotiation, networking and learning; Influencing policies for investing in infrastructure (financial and institutional) to underpin extension, e.g. Information management, Resolve short term funding issues, Career development – training
8. Outputs: Briefing papers – essays – Draft Operational Guidelines and Supporting Policy; Considerations re current themes in improved situation; Steps toward national extension summit

Figure 9.5: Dimensions of proposed National Extension Policy Forum (EPWG 2004)\(^\text{114}\)

Figure 9.6: Draft agenda for National Extension Policy Forum (EPWG 2004)

One example of these close deliberations was the type of people to be targeted by the forum - Sue asked the group in the second teleconference (2nd April), “I really want to clarify who is being targeted by this forum. We need good agreement on who is at this one in July so it links in better with a later event, such as a summit. What is our agreement on this?” Discussion centred on the earlier agreement that the forum could fulfill the ‘thinking and focusing’ purpose for building a draft framework. While this reminded me of the ‘design conference’ espoused by de Bono, I did not mention it, with my frame-of-mind firmly focused on a negotiation plan and negotiation process. I said: “Andrew Campbell and a few others have been adamant that there is a need for a thinking and focusing gathering within the extension crowd. Then the outcomes from this can be taken and negotiated at a policy summit. Therefore Forum participants need to be thinkers experienced in the extension zone, but from different sectors such as Government, industry, consultants, CMAs, Regional Bodies, etc.” John went on: “The meeting at Indooroopilly 5th March felt that the spread of representation was OK, but not a lot of time was spent critically thinking across the players in the extension system. We still need to work on this some more.” “Maybe one action we can all do before the next teleconference”, Sue suggested: “Is to identify further people that need to be at the forum.” All were in agreement.
My interim reflections on the preparation
As with almost every communication within this group, inequities or positional power differences did not disrupt decision-making, and trusting relationships were quickly built to a point where the level of confidence in negotiated agreements was high. Perhaps a difficulty that this level of cohesion exposed was the high level of expectation raised within the group that other extension stakeholders would share similar energies and enthusiasms for extension policy and that decision-making processes would be as creative, participatory and as reflexive as that of the EPWG. Through quite considerable interaction space, the group had quickly moved beyond Model 1 to Model 2 type interactions (Model 1 (positional) and Model 2 (collaborative) - refer to 8.3.7). The planning for the forum had reached a level of confidence as evidenced in discussion. “While we know it is not perfect, we are fairly comfortable with the items on the agenda, you and Jeff just need to sort out where everything fits” - “Yeah, if Jeff does his time-motion check that he has been promising it should be about right. We have a lot of things packed in, but we should be getting closer toward meeting our overall aims” - “In any case, we are all agreed that the first day is an information download, and the second day is processing this. Moving to the extension policy development phase.”

On the other hand, I felt some unease in not having introduced at least, the triple-loop-negotiation model to the working group. My reason for doing this was as much based on intuition and perception as it was on logical reasoning. While I had personally experienced distinct differences and conflicts of paradigms and agendas in episodes like the New Extension process (Chapters 3 and 4), I was not comfortable that the EPWG was moving directly into negotiation and conflict management. I mentioned negotiating extension policy individually with most members through proceedings, however decided not to push the concept collectively and risk alienating some or all members. It seemed that relationship building and social learning was much more fruitful at this point. Past experiences pointed toward the fact that the need for negotiation would more than likely emerge through the process. One regret I had at this point was that I had not introduced de Bono’s concept of a design conference, where the planned forum could be used as a platform on which to design interactions with controlling stakeholders in the extension arena.

It is important to note the high level of interest in the forum. The working group initially set a firm ceiling of 40 for the total numbers of attendants, mainly due to reasons of manageability and group dynamics. As the forum drew nearer however, total numbers began to expand and the secretariat received a wave of inquiries about the possibility of attendance. The working group eventually increased the upper limit to 56 in response to the high levels of enthusiasm and/or influence of these late respondents and interested parties.


The day before
The level of excitement of the forum was quite high. I was the first to arrive at midday on the 20th. After checking into my quite luxurious room I could not hold myself back from walking out the front along the waterfront. Coogee Plaza is well positioned overlooking a picturesque, small beach on the oceanfront south of the Sydney harbour entrance. As I walked out the southern entrance I met another participant who had just arrived Janelle Allison, the director of CRRIQ. She exclaimed: “Who chose this venue? It is a great position and view. I am already wondering what other conferences I can plan for here!” The general ambiance seemed to resonate with EPWG group members who commented positively on the venue and location as they each arrived. We agreed that a few of us meet in the conference room
The first day
Introduction
Once people had begun to assemble and it seemed that most had arrived I initiated proceedings by welcoming everyone and inviting a round of introductions to enable everyone in the room to both get a feel for who else was at the forum. I also invited people to begin the process of inquiring into the dissonance between what people said they believed in and what happened. Then I introduced the aims of the two days explaining: “Rural and regional Australia is changing fast and the focus is broadening from improving production to improving sustainability. Within this process we are asking in this forum what the role of extension is. This forum is part of a process of re-negotiating extension policy in Australia. Two significant events foreshadowed are this forum July 2004 leading to a Summit 2005. This process has been instigated by APEN, supported by the Cooperative Venture, CRRIQ, MLA and everyone here. One aim of the forum is to develop a draft Extension Policy Framework. Factors leading to this will be to review existing extension services and research, to investigate the needs of extension providers and recipients, to define extension in the scope of the Framework, and to consider how the Framework might be coordinated and implemented. Another contingent aim is to develop an action plan to progress the Framework leading into a National Summit”

“We in the working group have interacted with all of you in some way or another about the forum and what is intended. Hopefully we have represented your interests in being here. Also we would like to encourage everyone here to use this institutional space we have created by being here as a safe and creative space. In helping coordinate this space will have a rolling facilitation mandate with several of the working group members as well as other invited participants here facilitating us through proceedings.” Then I passed over to Andrew Campbell to talk about trends and issues in the extension environment.

Trends and issues in the extension environment – Andrew Campbell
Andrew made a substantial and well prepared presentation, which really set the scene for the forum. He introduced his talk by saying that: “As one of fourteen rural research and development organisations, Land and Water Australia is a research funder and broker, and has a big vested interest in adoption and therefore extension. We’re very interested in measuring, evaluating and improving extension performance, but we would prefer not to have to fund it…..” Then he went on, focusing more on extension itself saying: “From my first impressions as a research funder, I would say that Extension is broke, we’ve lost our way, we’ve lost credibility and the sense of profession is weak. It seems that we’re trading on old intellectual capital and there is no R&M on underlying extension infrastructure. It could be argued that we are not delivering on the main challenges, especially public good, and ‘triple bottom line’. We need a National Extension Framework.” He then moved to definitions saying: “I support Jeff Coutts’ definition of extension as the process of engaging with individuals, groups and communities so that people are more able to deal with issues affecting them and opportunities open to them. Jeff’s typology of extension models cover extension well with: Group facilitation/empowerment; Programmed learning; Technology development; Information access, and; Individual consultant/mentor covering the extension
He continued, admonishing: “But don’t conflate extension with capacity building, because extension is just one way of enhancing capacity and other tools may be more appropriate depending on the context. Extension is non-coercive and is primarily about fostering learning to improve decision making - in the domain of information, knowledge and learning.”

It surprised me here that Andrew was of the opinion that extension needed to be regarded separately from capacity building. I assumed that his Land and Water Australia position afforded him with a good insight into the political and institutional positioning of both concepts, and his understanding was that capacity building could include coercive measures which clashed with the non-coercive imperatives of extension.

Andrew then offered some further observations. “There is heaps happening”, he said, “And much of it is good with significant diversity and innovation. There is a menu of policy instruments for supporting change and extension is one of these.” Then he became more critical suggesting: “There is a predominance of project work and short-term contracts now with extension. It was measured this year that we have over 4000 extension professionals, yet where is the profession?” Then he noted a crucial paradox where: “For people focused on learning systems, the capacity for collective, cross-sectoral learning is limited. Also the extension activity seems to be funded, but infrastructure support is not.” From a proactive stance Andrew then suggested: “While there is heaps happening, we’re not making the most of it. We need to design ‘meta learning’ systems and to re-energise the extension profession. We need to build new extension infrastructure and define the extension niche amongst other policy instruments. But to do this we need a National Extension Policy Framework.”

Andrew continued to paint the picture, making a case for extension policy. He noted that: “While there are lots of interesting, innovative, and exciting pixels, it is a big picture with some flaws. There is this grand experiment with regional NRM delivery that will have significant influence into the future. From past perspectives though we find that we are rarely applying best available information and are disconnected from farming systems and practices. In many instances industry extension is organised by commodity. There is also a trend to privatisation of knowledge with some questioning that too much R&D funding may have been diverted to extension. This has never been backed well because of insufficient monitoring and analysis of outcomes.” Then he continued with his critique looking toward government: “State support for extension is in apparent decline and is patchy. The Purchaser-Provider model may be a problematic paradigm? Peter Cullen117 tells us that it wrongly assumes ‘intelligent purchasers’ and ‘ethical providers’ and cautions that these are both questionable assumptions.” Andrew then went on to describe the pitfalls of this model with its in-built incentives for purchasers to play safe and for providers to re-package and re-sell old news. He maintained that it sets providers up as competitors and thereby inhibits collaboration, information sharing, and long-term learning. A major limitation of this model he also flagged is that it funds project-based activities, but does not invest in infrastructure. “Even explicit capacity-building projects are short term!” He maintained his critical line identifying that: “Extension is undergoing a crisis of identity and extension agencies seem to have lost legitimacy. The short-term contracts, poor training, limited career paths, and inadequate support don’t help this as well as the difficulty in getting recognition for non-project work. The result of this constant churn is institutional amnesia and ultimately a loss of good people. Big impacts are burn-out, emotional exhaustion, depersonalisation and a lack of personal accomplishment.”

115 I thought at the time that Andrew (and Jeff for that matter) seem not to consider (yet at least) the multi-stakeholder negotiation dimensions of NRM and the process management, social learning and network building to go along with it.

116 I thought that Andrew and others needed some way of coming in contact with the negotiation issue (see Leeuwis 2000 2004)

117 of the Wentworth Group (see Chapter 2)
Andrew then put forward his suggestions for extension policy to deal with these issues, based on his longer term perspectives through writing a number of articles on the topic and numerous interagency interactions. “We need to define the extension niche in the context of policy instrument choice”, he proffered. “Too often, we expect extension to achieve landscape change when practical, profitable, adoptable practices/technologies don’t yet exist, or we expect extension to do the trick in the absence of complementary policies such as incentives, or regulation. Or we expect extension to reach all landholders. We also need to design meta learning systems. There is lots of great stuff happening, but it’s hard to get a handle on and keep track of, with wheels being re-invented all over the place. We’re not sharing lessons from the really good work and selling the good news. The joint RDC Cooperative Venture on Capacity Building is an important step in this. Also we need to build new extension infrastructure because we are still trading on senior staff, consultants and researchers trained many years ago. Some agencies still invest in post-grad training for staff, but not many. We also need to sort out roles and responsibilities, especially who pays for what? The Commonwealth-State conflicts about cost-shifting and finger pointing alienates everyone. The current audit done by Jeff Coutts needs to be refined and the funding mapped across all extension agents. Funding needs to be identified for rebuilding extension infrastructure. For example reinventing the extension services grants of the 1960s-70s.”

Following this, Andrew put forward what he saw as being essential elements of a National Extension Policy Framework:

1. **Defining the extension niche**: identifying what extension is good at and not good at
2. **Informing policy instrument choice**: understanding when, why and how to use extension as a complement to other instruments of policy. (Need to get signals right, use better with incentives, clarify property rights and responsibilities and develop ecologically literate legislation and informing and regulating markets)
3. **Agreeing roles, responsibilities and funding**: across public/private, government, industry and NGOs, tiers of government. This may need to be set out in a CoAG Agreement, schedules to NAP, NHT, NWI agreements that specifies timeframes and dedicated resources as well as long term infrastructure (not purchaser-provider), and an agreed dispute resolution mechanisms
4. **Fostering the profession and collective learning**: longer term contracts against defined outcomes with defined roles, salary levels, career paths, mentors. More accredited training (VET, in-service, post-grad) and serious investment in measuring adoption and impact and providing awards and recognition for excellence. Also necessary is a vibrant APEN with events, forums, publications, alongside a centre of excellence with world-class chairs, post-docs, post-grads, teachers, mid-career recharge opportunities, and spaces for reflection and critique.
5. **Supporting a long-term infrastructure**: in addition to support for the profession need to coordinate across NGOs, industry, regional bodies, local government and bridge the gap between industry and NRM/catchment based programs. It is also necessary to bridge across sectors such as rural health and education and exploit new technologies in knowledge management
6. **Guiding extension approaches**: according to context (for purchasers and providers) and use of different approaches (or mixes of approaches) for different purposes. Models include: Group facilitation/empowerment; Programmed learning; Technology development; Information access, and; Individual consultant/mentor

He concentrated on the second element. “Steve Dovers identifies fifteen policy instruments for sustainability: R&D and monitoring; Extension; Education and training; Consultative; Agreements and conventions; Statute law; Common law; Covenants on title; Assessment procedures; Self-regulation; Community involvement; Market mechanisms; Institutional change; Change other policies, and; Re reasoned Inaction.” He then went into further detail about criteria for choosing one or a combination of these policy instruments. “In considering
extension we need to recognise that extension is good at: Shifting the mean for adoption of adoptable practices; Helping those who want to help themselves; Accelerating adjustment; but not necessarily at the bottom end, and; Complementing other measures such as R&D, regulation, incentives, planning, and pricing. Also to be recognised is that extension is not good at: Shifting the bottom 20%; Helping those who don’t want to help themselves; Developing new systems, practices, technologies; Developing ecologically literate legislation; Sorting out the mess across tiers of government, or; Dealing with inappropriate land uses."

He then moved to NRM cautioning that: “The landscape sustainability challenge is a much harder extension job than increasing productivity. Following Frank Vanclay, the 80:20 rule is a self-serving delusion and is inequitable and unacceptable environmentally. NRM demands skilled application of sophisticated mixes of approaches. Extension scientists need to be integrated into R&D, planning, policy and management teams. Overall though, we need to move beyond Triple Bottom Line to Landscapes, Lifestyles, Livelihoods - A Triple Helix, not a triple-bottom-line. This is because these systems are interwoven and interdependent with each shaping the other two. It is certainly richer than an accountancy metaphor and separates lifestyles from economics. The heterogeneity among people is implicit and it is not agri-centric when applied in rural spaces. It may be a more fruitful concept for holistic extension?” Andrew then passed over to Jeff Coutts to set the context about extension policy.

**Teasing out the extension framework – Jeff Coutts**

Jeff was well prepared, and the EPWG had suggested in good faith that Jeff would be ideal to introduce the policy context of the discussion. He introduced his presentation with the questions: “What do we mean when we talk about a National Extension Policy Framework?; Whose framework?, and; Why now?” He further talked about the extension system explaining, “It has, within one organisation, a purpose niche for which it is intended, and is balanced by both constraining and enabling conditions (see Figure 9.7). Then he further explained that when this organisation interacts with another extension organisation It would appear to make sense that two extension organisations who overlap (Figure 9.8) need to understand the other’s “policy framework” to best work together.

**Figure 9.7:** Extension policy triangle (Coutts 2004)

**Figure 9.8:** overlapping extension policy triangles when two organisations interact (Coutts 2004)
In closing Jeff suggested that: “A National Extension Policy Framework will help between the purpose niche, enabling conditions and constraining conditions that I explained earlier to help with understanding and negotiating the different roles, boundaries and support needs necessary for a dynamic and function system.” As he passed over to Tony Gleeson and Gerry Roberts he raised a rhetorical question as to who would coordinate of this framework.

**Briefing paper main points - Tony Gleeson and Gerry Roberts**
Tony and Gerry presented key points from nineteen briefing papers which targeted a range of perspectives and issues. These papers were located on: [http://www.couttsjr.com.au/forum/](http://www.couttsjr.com.au/forum/)

<table>
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<th>Tony Gleeson</th>
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<td>4. Mapping of rural industry service providers – Kate Roberts</td>
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Table 9.9: Submitted Papers as presented by Gerry Roberts and Tony Gleeson

**Presentations – Neale Price, Kate Andrew and Cees Leeuwis**
Neale Price presented the identity, role, and outcomes targeted by the Cooperative Venture for Capacity Building for Innovation in Rural Industries. Neale highlighted the following key result areas and contributing authors:
1. What works and why – National Education/ Extension evaluation (Jeff Coutts, Kate Roberts et al.)
2. Fostering Involvement – Increasing participation from the farming community (Jenny Andrew)
3. Optimising Institutional Arrangements – (Rural Enablers)
4. Professional Support for Rural Educators – Map extension/ education providers (Kate Roberts, Mark Paine et al.)

Kate Andrew presented a Land and Water Australia position on extension saying that while they are a research broker, they require a significant extension input for the wider interaction of their work in rural and regional Australia.
In a video presentation Cees Leeuwis presented an international perspective on extension in light of recent research directions and initiatives at Wageningen University in the Netherlands. Cees suggested that agricultural development has become a contested issue with new stakeholders entering policy debates and knowledge systems. He observes that agriculture is no longer the primary issue with that multi-functional land-use and ecological services and chain management and food safety gaining predominance. Also he admonished that the division of public and private responsibilities has become unclear/contested. For improving innovation in different arenas to deal with these issues Cees recommends extension puts effort into:

1. **Network building**: creating chances by fostering new relationships; enlarging space for solutions
2. **Social learning**: contextual knowledge integration; stimulating complementary mindsets for coordinated action (involving other forms of perception than knowledge), and; dealing with an ever changing environment
3. **Conflict management/negotiation**: overcoming / managing inherent conflicts

**Case Study Catchment – CMA**
Russell Pell from the Goulburn-Broken Catchment Management Authority in Victoria then described the role of the CMA in working with different stakeholders in the catchment. Russell also painted a picture of how he, as a farmer, needs to interact with the information system to meet his own business, production, NRM and social goals. He went further to suggest that extension needs to empower the community and deliver services across a range of private (farm business) and public (Natural Resource Management) providers.

**Workshop Process**
Following these very informative presentations participants were positive and ready for action. They were broken into small groups and instructed by Janelle Allison to discuss, record on butchers paper then present back ‘issues to be addressed in an extension policy framework.’ Talking later with two EPWG members, it was uncertain exactly what went awry here, but somehow this idea generation session did not have the closure that many participants needed or desired. The plenary was intended at the end of the day to be a general debrief to share insights and frustrations. At this point however, I felt that the discussion began to degenerate and that my Model 2 (collaborative) hopes were being brought back to a Model 1 (positional) reality (see 8.3.7). Increasingly the different agendas and reasons for attending were thrown into the conversation and positioning of different perspectives began to emerge. Some of these included delivery agency versus research perspective and agriculture versus NRM versus community support functions. There was an increasing level of unease that peoples’ different agendas may not be considered. Core value conflicts and core uncertainties were beginning to emerge exposing a large risk of trying to deal with intractable wicked problems on the second day. It became more evident to me that we had not planned adequately for bringing different perceptions on the forum’s purpose or divergent agendas to light in a more inclusive, yet organised, manner. It seemed that, given a couple of personal discussions with different individuals at the forum dinner that evening, there was a fair chance that conflict would erupt the next morning when some participants felt that their needs were not being met by being there. On the evening of the 21st, I was quite nervous as to what the morning would bring.

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118 It is not constructive to perform a detailed analysis of these comments or contributions in this thesis due to the risk of unnecessarily complicating relationships and [tenuous] working arrangements. Suffice to say that a key learning point is that the EPWG should have planned more effectively how to defuse, and/or capitalise on points of difference in more constructive ways.
The second day
Gerry’s Stories
As it turned out, I need not have worried. The emergence of a quite conflictual scene never had the chance to eventuate. It was Gerry Roberts’s turn to facilitate the first session next morning. In discussion with Gerry earlier I had tried to air my concerns, however Gerry assured me: “Don’t worry Greg, it is all under control.” Surprisingly when he initiated proceedings on the 22nd he also vented his concern, saying: “Yesterday afternoon, a range of different interpretations and perspectives were coming to light and while it was great to enter these ideas into proceedings, we were regretful that we weren’t able to capture the creativity and enthusiasm from them. What I would now like you all to do is break back up into your groups from yesterday and spend twenty minutes composing a story about what needs to happen with extension and with this forum. This story is to use a format aligned with ones you were probably used to many years ago, there is a quest, there are heroes and heroines, there are villains and terrible traumas, there is danger, there is happiness, and best of all there is a happy ending. Please return when you are ready and tell us your stories.”

Curiously, this strategy worked very well with each group becoming intensely involved in creating a fictitious storyline, with a moral relating to extension. Using this modality of working through a complex issue in a group seemed to capitalise on the integrative features of having a common future focus, of imagining plausible futures and aiming toward positive outcomes. In the group I was in with Gus Hamilton, we composed a story about the animal kingdom and the threat of its demise through a variety of factors. Funnily enough, the lions used a social learning approach to reframe and build capacity in the animal kingdom to be able to deal with these new issues, and they all lived happily ever after! This process, although unplanned, noticeably opened the path to creative thinking and moved away from the previous afternoon’s unproductive positional wrangling. Following this session, participants were more able to consider different elements recognised from the previous day as important to extension policy, and build on them further. This reached a point where early in the afternoon it was becoming apparent that an age-old bugbear was resurfacing. Defining the purpose of extension. The conversation again began to become somewhat unruly, however Leith Bouly brought it to a halt when she put forward an idea. She said: “It seems like there are a number of crossed purposes in the discussion, but a phrase that makes a lot of sense, as I can see it building on points raised is this. The purpose of extension today is: Protect, maintain and enhance landscapes, lifestyles and livelihoods for the benefit of all Australians in urban, rural and regional places.” This seemed to be another turning point in the forum where participants where collectively agreeing on a fundamental point and the basis for moving forward..

Forum Outputs
Following presentations the forum then continued with workshop processes by using this information to further consider the needs for extension policy in rural and regional Australia and progress action to meet them. Following is a brief synopsis of the 55 pages of butchers’ paper notes that resulted from these group sessions.

1. Current context – Current issues
A range of issues that need to be addressed for extension to play an effective role in supporting rural change processes were identified at the forum. Key among these were:

- **unclear definitions creates confusion** – which hampers: decision-making processes about extension at all scales; the use of extension as an instrument to achieve outcomes; government’s intrinsic responsibility of identifying roles and responsibilities; defensible claims for funding support, and; the very values and principles of extension
- **lack of extension infrastructure** – which limits net service delivery
- **languishing quality, standards, and best practice** - which hampers continuous improvement in extension practice and the extension discipline even if extension networks are active
• **a lack of professional development** – which is: reducing skills in extension; limiting the deliberative management of skills and identification of resource providers; eroding core competencies and preventing accreditation, and; elevating difficulties associated with recruitment of young people into a career path (with most contracts being short term)

• **reduced public/private funding** – which limits: service delivery: outcomes, and: career development

• **inadequate information availability** – which continues to plague extension practitioners

The compiled material from the forum was assessed by members in the working group and reconstituted into the national extension framework elements proposed by Andrew Campbell. The following national extension framework components were included in a report from the EPWG back to the CVCB highlighting the outcomes from the forum.

2. **What are the benefits?**

In answer to the question ‘what would be done differently?’ the Framework will inform and influence extension policy by advancing the following benefits:

• Broadening the purpose of extension from developing (agricultural) production capacity to targeting lifestyle, landscapes and livelihoods in all of Australia

• Organising the infrastructure and actions needed to deliver this

• Improving the standard of extension practice in Australia and providing support to extension practitioners in enabling behavioural changes to achieve targeted outcomes

• Better recognition of extension’s role in the mix of policy instruments to support and enable behavioural change

3. **Articulating the benefits**

How would Australia benefit?

• Improved outcomes from publicly funded programs

• More efficient investment for private service delivery

• Communities assisted through social change

• improved range of skilled people – extension practitioners to support change agendas for the sustainable future of Australia Following is a draft outline of a National Extension Policy Framework

4. **Next steps – Developing the Extension Framework**

The forum working group was charged with driving activities to negotiate the development of an extension framework in concert with the wider stakeholder base. Specific actions contributing to this process were to include:

• Strategic alliances and networks (e.g. with Capacity Building Joint Venture, Centre for Rural and Regional Innovation Queensland, Australasian Pacific Extension Network)

• CVCB road show around Australia showcasing extension related research and policy developments

• Market identification and finding what different markets want

• Research and development of extension tools

• Study to determine extension practitioners’ needs

• Defining skills and capabilities – competencies for extension practitioners

• Identifying professional development courses and professional development pathways

• Initiation mentoring program for extension practitioners

• Energising APEN – membership drive, chapter activity, identifying APEN’s policy role
9.1.5 Post forum interactions

Case for a national extension framework

Value proposition of extension - Promoting the value of extension as a policy instrument within a broader policy mix.

Why an extension framework? - Promoting the role of extension (alongside other instruments) in sustaining the triple helix (lifestyles, landscapes and livelihoods).

Benefits to Australia – Highlighting benefits of: improved ‘public good’ outcomes in publicly funded programs; communities assisted through social change; more efficient public and private sector investment; improved range of skilled people to support change agendas in rural and regional Australia

Raising the extension profile - Raising the profile and professionalism of extension as a discipline and practice.

Framework components

1. Embedded principles - Enabling practitioner collaboration in new ways of doing business.
2. Extension infrastructure - Moving toward improved extension infrastructure.
4. Roles and responsibilities - Supporting strategic partnerships in extension (vis-à-vis education, training, capacity building, regional bodies, public/private).
5. Funding logic - Balancing public (Federal-State-Local govt), private, and beneficiary stakeholders on a case-by-case basis.
6. Choosing the right instrument - Identifying the best policy instrument mix for achieving outcomes (purpose, objectives).
7. Continuous improvement – M&E - Strengthening quality of extension service delivery and increasing the capacity of extension practitioners and service delivery programs.

Implementing the framework

Included in the framework is an implementation plan which highlights: Who delivers it; Funding needs; Leadership; Transparency of intent; Key influencers and stages of contact between funders-providers-clients; Approach (paradigms) suited to meet different (institutional) needs; Information sharing needs within the extension discipline, and; Continuous improvement – capturing experiences from extension discipline.

Figure 9.9: Draft Extension Framework Components (Leach 2004)

Following the forum, while maintaining contact with all EPWG members, I interacted with Jeff Coutts and Jess Jennings in particular. Jeff, for scoping the next steps in this negotiation process and conceiving a project to progress outcomes. Jess, as a member of the APEN management committee to draft a project proposal under the APEN banner.

Teleconference 6th August

Directly following the forum the butchers paper notes were typed up and I organised a teleconference with the EPWG on the 6th August. To begin, I asked for people’s reflections on the Sydney event. Responses were summarised as: “It was a positive outcome – A good base to launch from”; “It provides a legitimate right to continue”; “There is strong support for the notion of a framework”; “Mixed expectations may have lead to some disappointments, for example expecting to be taught about extension policy”. There were some turnarounds, for example David Hartley the Executive Director from WA, who thought: “The first day was wasting my time, but that the second day was a complete reversal”. Other responses
Then Jeff and I presented the mind-map that he and I had begun to construct building on forum outcomes. Jeff explained the map in some detail then said: “This is an attempt at thinking about where to from here? Does anyone have any questions or further suggestions?” Jess responded and said: “Yeah I am keen on building on the map to see where it may be improved.” Also it was resolved that outputs from the forum would be recorded in a report to the Cooperative Venture, a 3-page media release and a detailed version with forum outputs.”

Figure 9.10: National Extension Policy Development Mindmap (Leach 2004)

Teleconference 23rd August
Agreement was reached that the three documents were at a point ready to go back to participants. Also there was a decision to convene a meeting (Brisbane 13-10-04 below) to negotiate roles and activities in the continuation of the extension policy process in the form of a funded project involving the Cooperative Venture, CRRIQ, APEN and the EPWG.
Face-to-Face Meeting 13th October 2004 – Brisbane

This working group meeting was scheduled to build on outcomes from the Sydney Forum and progress the funding application that had been suggested regarding the development of a National Framework for Extension. At this meeting Jess Jennings presented the project proposal that a number of the working group including Jeff Coutts, Greg Cock, Gus Hamilton, Gerry Roberts, John James and myself as well as John McKenzie and Tracy Henderson from the Cooperative Venture for Capacity Building had helped develop. I opened the meeting discussing outputs from the forum and then Jess presented the project proposal as it stood.

The meeting agreed that progressing this application through to a project was of urgent importance. Jess agreed that in my absence (I was to be in Wageningen) he would continue the project application process. Following this I presented a PowerPoint introducing the triple-loop-negotiation concept and proposing that the development of a National Extension Framework was a complex negotiation process involving multiple stakeholders with divergent, often conflicting agendas. At one point discussion entered into a considered debate about what the key functions of the national framework should be. While not exhaustive, the list shown in the following Figure is a record of the suggested key functions.

### Key Functions of a National Extension Framework

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<table>
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<tbody>
<tr>
<td>1.</td>
<td>Mechanism for improved coordination (messages, processes and involvement) of extension across agencies/sectors/providers</td>
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<tr>
<td>2.</td>
<td>Improved understanding at policy/funding level of what extension can (not) achieve and best processes to do this (extension’s niche)</td>
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<tr>
<td>3.</td>
<td>More effective training/skilling of extension personnel and management to be able to implement best practice</td>
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<tr>
<td>4.</td>
<td>More informed choices about arrangements (service delivery options, policy instrument mixes, cost sharing, etc) towards achieving different outcomes</td>
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Figure 9.11: Proposed function(s) of a National Extension Framework (Leach 2004:1)

At the conclusion of the presentation I drew the triple-loop-negotiation pentagon (from Chapter 8) on a whiteboard and invited all present to enter their opinions and ideas of what may be needed to progress the development of a national framework. Elements of the negotiation plan presented in Figure 9.12 came from this activity. This plan was then used as a source document in development of applications for funding support.

A collective agreement from the meeting was that Jess Jennings would coordinate the development of a project application on behalf of the working group to be submitted to the Cooperative Venture for Capacity Building’s general call for research projects. The working group had planned this meeting strategically to include three key Cooperative Venture Board members and was endeavouring to secure their support for championing the project application through the funding allocation process. All at the Brisbane meeting were very supportive of efforts to prepare a funding application and careful attention was paid to levels of funding permissible. The Cooperative Venture members did discuss at one point that they were a little concerned about conflicts-of-interest but dismissed this as being an issue for the application process.

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119 Being both on the Cooperative Venture for Capacity Building Board and an active member of the working group aiming toward development of a National Extension Framework
Process Management for Developing a National Extension Framework - Triple Loop Negotiation Plan

1. Networking and Participation
   - Use rigorous tools/processes to engage/enable participation – interact, create and develop as well as ‘discuss’, ‘argue’ and ‘decide’
   - Identify ‘political winners’ to attract participation of leaders and other key players
   - Inform process participants (Sydney) of progress to date and invite feedback
   - Engage with APEN clusters to advance awareness, interaction and input
   - Map (‘Mindmap’) the networks, connections and priority of those connections
   - Conduct Inter-State process with aims of advancing extension in a coordinated manner across State governments in Australia
   - Network to achieve wider participation and broader (than APEN) ownership of the Cooperative Venture Proposal to advance the development of a National Extension Framework

2. Reducing Uncertainty and Learning
   - Develop a communication plan – communicate process, progress and outcomes frequently
   - Inquire into State-Govt extension ‘restructures’ and incorporate learnings into project proposal
   - Present National Extension Framework proposal to Director Generals and Senior Management in State Governments (e.g. DPI&F) to enrol support, input and feedback
   - Plan and implement meetings and workshops with participants to gain clear buy-in of this process and outcomes
   - Invite stakeholders/participants to ‘be uncertain’ and enable all to fill knowledge gaps together
   - Identify and learn from similar interactive and multi-stakeholder processes

3. Listening and Framing
   - Enable interpretation and understanding of key drivers and influences of participants/stakeholders
   - Formally reflect and evaluate (interpretations and learnings of process)
   - Clearly state and communicate the learnings, progress and impact made at the end of each stage of the process (e.g. meetings, events)
   - Working group members need to explicitly practice moving between the three negotiation loops
   - Working group members reflect on how we listen and how we respond to observations about our listening
   - Working group members need to revolve through the triad of learner, listener and observer (in an overt/explicit manner) to reflect on how we learn and negotiate

4. Creativity
   - Need to use process tools to think outside the box – e.g. The 6 hats, etc.…
   - Expand the ‘diversity’ of working group membership to include other ‘change’ sectors/professionals
   - Get strategic high profile people (like Leslie Moody) to advocate the need and advantages of a well negotiated and organised extension framework and service-delivery system and seek wider (creative) input
   - Use the ‘arts’

5. Action Science
   - Working group members participate in a ‘values survey’ – inquire into ‘our values’
   - Working group is trying to facilitate change so we should bring in all our tools to effect this and be explicit re how they are used e.g. Photoelicitation
   - Working group members should be modeling our values through communicating and interacting with stakeholders (practicing what we believe in)
   - Group members need to be explicit about the ‘Extension Framework’ development process

Figure 9.12: Triple-loop negotiation plan national extension policy development (Leach 2004)
Jess coordinated a very inclusive project application process, inviting and receiving comments and additions to the preliminary proposal from several participants at the Brisbane meeting (the Cooperative Venture members did not contribute). A graphical representation of the learning-negotiation plan is shown in Figure 9.13.

Much to the disbelief of the working group however, the project application was rejected. Even though there was a risk in submitting the application as a negotiation plan, it had received strong verbal support from the three CVCB members who had attended the October 2004 working group meeting. Feedback from the Cooperative Venture was that due to the high number of applications (104), the diversity and quality of research proposed and limited funding, the National Extension Framework proposal 'didn’t pass the line.' The working group did not get the chance to prepare a full project submission and as a consequence, all preceding efforts, including the two national workshops and substantial time devoted by the working group and others, was in dire jeopardy of resulting in nought.

2005 – Continuing without funding
While some may have wondered if I was in a state of ‘denial’, not wanting accept that key extension stakeholders and funders did not want to embark upon a long-term negotiation process, I tried to remain optimistic. On the one hand there was strong feedback that the some parties are sceptical about my efforts and those of the working group, but on the other hand I strongly perceived that there was continuing enthusiasm from most members of the working group and others that this process could positively influence extension policy.

Contact with several on the workgroup early in 2005 saw agreement that a teleconference was imperative to reflect on the result and consider the way forward. Included in these early contacts, key conversations with Jeff Coutts and Gus Hamilton particularly stood out. When I visited Jeff in his Toowoomba office (19-01-05) he was not deterred by the funding knock back. “We need to touch base and talk through the situation with the funding glitch and regroup to continue progressing actions toward the National Framework without it”, Jeff said. He was particularly enthused with the prospect that Niels Röling and Janice Jiggins from the Netherlands (where I had visited in the two months prior) and Barbara Gray (on sabbatical in the Netherlands from Pennsylvania State University) were interested in being involved in further extension policy developments. Jeff exclaimed: “This is great. Having the involvement of these people alone as international players is a great hook! And we could ask Cees Leeuwis too, this would be fantastic!” he mused. "We really have to go for this, it is too good an opportunity to pass up." He continued by adding: “We just need to get the working group together, plan a process and event.” I agreed. “If these people are keen to put their effort and time into coming here we certainly need to capitalise on their offer,” I said.

Gus Hamilton was likewise positive at the prospects of international inputs from Röling, Jiggins, Gray and others. “This would be a great opportunity. We need to think a lot about the politics of the system though …and the pattern of investment. At the moment we have managers and politicians who do not see beyond the Transfer-of-Technology paradigm …and we have profitable primary industries in DPI&F divorced from NRM outcomes in DNR&M. The big issue here is two distinct lines of investment. We have sustainable production at one end of the extension continuum with its private benefit and we have sustainable NRM at the other end with the market-failure and public good nature of service delivery. It was reframed this way after the last election. Our Premier sees the Great Barrier Reef, water reform and leasehold land as big ticket items but there seems to be no support for focusing on sustainable profitable outcomes …just on NRM.” From this I interpreted that Gus believed extension policy negotiations needed to target the market-failure and public good outcomes.
Figure 9.13: Negotiation Stages in the development of a National Extension Framework for Australia (NEFA) (Jennings 2004)
We then spoke about the concept of nested systems that Niels Röling and Janice Jiggins had discussed with me when I met them in the Netherlands in December 2004, and their crucial function in the multi-stakeholder negotiation environment extension is located within.

Gus was quick to conceptualize key nested systems important for an extension framework. “There needs to be a better linkage between the State Government system and the Federal system,” he suggested. “There needs to be better representation and linkage at the PISC and NRM Standing Committee levels …Maybe a good route for us to explore is to meet with Beth Woods in DPI&F’s executive. She has a foot in the PISC camp at least.” I agreed to act on this advice. Gus added that: “What we need to get onto the radar is the RD&E conundrum …if the outcome we are seeking is innovation, then we need improved integration at all levels in the RD&E equation. We need policy, regulation, incentive initiatives and social systems managing this to be talking. With the current divide driven by the redirection of public funding there is a disconnection from the user to the policy-research level. Representation is disconnected and much more complex …it is now a bigger cake with a lot more slices!”

We then spoke about State Government leaders and influencers of extension being amongst these nested systems. “In some ways this builds on an idea that I have had for a while, about getting together a ‘ginger group of extension thinkers’. Of course there might be some tension in doing this, but there needs to be.” Gus suggested topics that he believed such a group should be considering. “Firstly we need to put on the table the question of how we manage the political game to enable coherency in change processes and strategic ends. Also we could look toward raising the level of research and theoretical development for extension …and key to this is the issue of linkages with University, something that has been developing with CRRIQ but needs further work. Another thing would be to identify the potential for sharing and cross-institutional transfer. And we need to consider the longer term issue for our political and managerial masters …what is the efficiency of extension as a policy tool to support change processes?”

I then spoke with Gus about the process management dimensions of extension including organizing and supporting network building, social learning and multi-party negotiation processes I had been encountering (e.g. Leeuwis 2004). Gus was supportive of such thinking and suggested that while such developments were undoubtedly positive: “At this stage, we need to be particularly careful about balancing the ideal scenario for extension with the pragmatic realities of what is possible”.

**Teleconference National Extension Framework Working Group (11-02-05)**

Jess Jennings conveyed what had happened with the CVCB project submission knockback however the working group remained eager to continue progress. As Greg Cock supported: “Regardess of this funding hitch, we need to re-group and continue on with current resources and seek funding as opportunities permit.” Gerry suggested that: “It would be worth investigating other similar such processes where a group of interested parties had coordinated a national framework development activity to good effect …Landcare might be an example.” Everyone supported Gerry’s idea.

My update on contacts I had made with Niels Röling, Janice Jiggins, Cees Leeuwis, Barbara Gray (Netherlands) and Linda Putnam (Brisbane), and their individual offers in helping

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122 It was not until a much later time that I saw the wisdom in Gerry’s suggestion. The multi-stakeholder processes that were particularly successful in NRM included examples such as the cross-sectoral and cross-discipline working party that instigated the National Action Plan for Salinity and Water Quality.
progress the development of a National Extension Framework was not as well received as I had expected. I told of Niels Röling’s suggestion: “That we needed to focus on the social narrative (and maybe throw out the word extension) in rural and regional change processes, and work strategically with the pre-eminent economic and legal narratives …and that we need to progress inquiry processes with these powerful paradigms to see how social science and process support can help achieve sustainability outcomes.” John and Jess suggested that: “The ‘outside’ support of internationals is good, but we need to be very careful they are not seen as coming to Australia to ‘run the show’ or preach. We agree that their offer and participation is good and valuable, however we need to be seen as running the process! We could involve them in an APEN International Conference.” Gerry then suggested: “You know, there might be some potential for extension people presenting at environmental lawyers, economists and accountants conferences.” Jess agreed and further suggested that: “The Policy group is pre-eminent in Australia and we would need to concentrate on them also!!”

Then I gave an update on the planned State Extension Leaders Workshop that had emerged from the forum and various subsequent conversations with Gus Hamilton, Jeff Coutts and others (please see Chapter 10). The working group members participating in the teleconference were very supportive. I told that: “Röling and Jiggins think that we would be well served by identifying the critical nested systems in the larger extension system in Australia, and working with these in the lead up to a larger event, such as a summit or symposium. I spoke about the State extension leaders being one of these nested systems, along with the NRM Steering Committee and the Primary Industries standing Committee, and the Council of Australian Governments. They were in agreement. John James then suggested: “I think the State Leaders nested system needs to lead into NRMSC, PISC and hopefully COAG.”

When we then discussed the next steps with development of a National Extension Framework, everyone agreed that we need a plan to identify where current actions may fit and agreed on the need for a face-to-face meeting to clarify next steps. The working group supported me to re-adapt our existing plan in light of developments with State Extension Leaders and international visitors and to consider meeting end March/early April to plan next steps with the National Extension Framework.

Proposal (Mar 05): Developing a National Extension Framework for Australia
The high levels of enthusiasm shown by working group members saw that the plan for developing a national extension framework persisted despite the funding knockback. The last version of the proposal to be passed around the group was sent by myself in response to further insights from my trip to Wageningen University (late 2004) as well as contact with a participant within the Primary Industries Standing Committee (Feb 2005). The aim of the proposal was to ratify and store ideas from the group in readiness for inclusion in funding application(s). The following section is an excerpt from the email I sent.

"Irrespective of funding support, the CVCB project proposal developed Oct-Nov 2004 outlines a sound methodology for advancing the development of a National Extension Framework. This has been negotiated across a number of stakeholders. The version below contains adaptations that emerged in 2005 including recommendations from contact with Beth Woods, Niels Röling and Janice Jiggins.

OUTCOMES
The prime outcome is to increase the capacity and effectiveness of Australian extension practice to benefit Australia’s national interest. This can be achieved by improving extension’s contribution to the continual improvement of rural and regional landscapes, and the lifestyles and livelihoods they support."
OBJECTIVES
The key objectives for reaching this outcome are to:

- Coordinate the development of a National Extension Framework for Australia (NEFA) that will inform the implementation of extension policy across Australia to deliver outcomes on the ground.
- Better engage extension stakeholders across Australia at the national, regional and local level.
- Build on the national extension network to support the rollout and further development of this framework.

BACKGROUND AND BENEFITS
Rural and regional Australia continues to change, requiring new and different things from accepted models of service delivery. Australian extension practice has achieved much in development terms. However, as priorities are transformed by social, economic and political change, extension needs to rediscover the ways to assist innovation and implementation of new technologies and processes. Extension is an important component within an increasingly pluralist system of service-delivery options and information sources. Coutts et al. (2004) report that well over 4000 professionals are engaged in extension activities today, however coordination is problematic. In order to effectively work with and support the changing decision-making landscape for rural and regional Australians, this project will:

1. Improve understanding at policy/funding level of extension’s niche as a policy instrument.
2. Enable more informed choices for combining extension with other policy instruments to achieve effective outcomes (mixing extension with incentive schemes, cost sharing, regulation, marketing, vocational education etc.).
3. Engage the extension community with rapidly changing regional multi-stakeholder processes (including NRM, community development, VET) to integrate extension with other regulation and incentive instruments targeting responsible NRM behaviour.
4. Improve coordination, collaboration and communication within the extension community at personnel, project, and institutional levels.
5. Improve coordination, collaboration and communication between the extension community and stakeholders, industry and political sectors.
6. Establish extension program planning processes for use across sectors, disciplines, and R&D interests.
7. Establish an accountability framework for extension practitioners to identify value for funders, clients and the community.
8. Improve national and state institutional arrangements for extension R&D, and its integration for continuous improvement and best practice.
9. Increase the professional identity and public profile of extension personnel, including establishment of core extension competencies.

PROJECT DESIGN AND METHODOLOGY
This project will be conducted using methodology that is reflexive, democratic, inclusive, collaborative and encouraging of stakeholder participation and that embraces continuous improvement.

Stage 1: Coordination of State Extension Leaders Workshop (5-6 April)
OBJECTIVES FOR GROUP
1. Establish a State Extension Leaders Group
2. Improve national interactions and collaborations for improving extension service delivery within and across State Government boundaries
3. Contribute to the development of a NEFA
WORKSHOP AIMS
1. Identifying the role of an extension leaders network - Can we make a difference - where is the legitimacy, the power, the resources for establishing and maintaining this network and influencing extension policy and practice?
2. Identifying how to manage the political game to enable coherency, innovation and more strategic approaches to extension (dealing with NRMSC and PISC and impacts of short political cycles)
3. Influencing development of a NEFA – identify critical stakeholder groups (nested systems) and strategies for interaction through a NEFA Committee (below)
4. Raising the level of R&D in extension - e.g. University linkages
5. Improving professional development for extension practitioners - e.g. University Linkages and Visiting Fellows
6. Improving integration of RD&E - with focus on extension's role in this (cross-border?, cross-institutional?)
7. Identifying extension's efficiency and effectiveness for achieving desired and emergent outcomes
8. Identify extension as a policy instrument - where suited & where not?
9. Investigating potential for sharing - Cross-institutional transfers
10. Identifying the possibility of Joint Extension Projects - e.g. Co-investment in RD&E

Stage 2: Coordination of contributing stakeholders to develop NEFA
Establish a NEFA Committee to negotiate the development of the National Framework for Extension and plans for its implementation.

OBJECTIVES FOR GROUP
1. Coordinate stakeholder interactions for collaborative development of a NEFA (Note: Emphasis on getting a system in place for delivering outcomes on the ground rather than a new model of extension)

GROUP AIMS
i. Interact and leverage support (political/funding/in-kind) from relevant stakeholder groups across Australia (as identified in Stage 1) e.g.
   a. with respective State advisors to Primary Industries Standing Committee and NRM Standing Committee
   b. with state agencies through Leaders Group above
   c. with regional and local agencies (e.g. CMAs, local government)
   d. with economic and legal sectors
ii. Presentation/interaction with Standing Committees/Ministerial Councils
   a. April sign-off for in-kind support for planning National Summit
   b. Old Parliament House
   c. Identifying “Driver” (departmental person)
iv. Identify patrons –
   a. Chief Scientists (e.g. Robin Batterham)
   b. CEO CSIRO
   c. Chair of Prime Minister’s Science Advisory Panel (Peter Cullen), etc.
v. Commissioned research on the cost-benefit of extension – Needs to be driven by COAG and/or NHT, Productivity Commission, etc.
vi. Identify and work with critical stakeholders – Industry, agribusiness, consultants, CMAs, Regional Bodies
vii. Contact with high-level NHT and NAP structures
viii. Contact with NGOs – e.g. Greening Australia
ix. Interaction with Landcare structures – Landcare Aust. Ltd
x. Influencing RDCs to sign-on – Committee of Chairs (RDC Coordination Group)
xi. Target cross-sectoral issues
Stage 3: Communication of the National Extension Framework for Australia
The NEFA Committee to publish extension policy recommendations in a National Extension Framework for Australia document that is comprised of reviews, investigative research and inputs from a wide range of stakeholders. Oversight and reporting of national extension activities are to be included within the NEFA publication.

The NEFA Committee to communicate and promote an agreed plan for implementing the National Extension Framework for Australia with relevant stakeholders. The plan will identify each stakeholder, timeframes for liaison, and expected outcomes from the implementation of a national extension policy.

Stage 4: National Extension Policy Summit
Following the APEN International Conference in 2006, convene a one-day high exposure national summit (in Canberra) with emphasis on the aims of:
1. Securing support in the public arena for cooperation/collaboration and coordination of extension efforts at a policy/political level
2. Increasing Australians' awareness of the social changes needed for sustainable landscapes and communities
3. Increasing Australians' awareness of the extension support required for this

Stage 5: Policy implementation of the National Extension Framework for Australia
The NEFA Committee to facilitate the implementation of extension policy by relevant stakeholders that reflects the National Extension Framework for Australia agreed at the summit. This is to be achieved by the NEFA Committee coordinating the presentation and negotiation of the National Extension Framework for Australia to relevant stakeholders, with a view to their consequent implementation of extension policy across Australia that reflects the spirit, principles and tangible recommendations of the national framework.

Stage 6: Evaluate the effectiveness of the NEFA Committee to inform and implement Australian extension policy
Evaluate the impacts on agency policies as a result of developing the National Extension Framework for Australia, as well as conduct several monitoring and evaluation processes that focus on the impact/benefit of subsequent extension policy and practice that has been generated by the National Extension Framework for Australia." (Leach 2005)

Figure 9.14: Negotiation Plan for developing a National Extension Framework for Australia

This negotiation plan was the culmination of my work with the EPWG, and particularly Jess Jennings, Jeff Coutts, academics at Wageningen University and consultation with others, to plan interventions that enabled development of a National Extension Framework for Australia. While this was communicated to the working group and received support and input in its development, the required funding needed to further this work was extraordinarily difficult to locate. Moreover, this intractable issue pointed to one of the core dilemmas for extension policy – that of who should lead and fund cooperative extension policy efforts across the three tiers of Government and including regional NRM bodies, industry and academia?

Notwithstanding the funding dilemma, I expected that the negotiation plan would continue to be adapted and be re-negotiated building on the enthusiasm, participation and creativity of the working group and other key stakeholders. The core aim of this negotiation process as discussed in the Brisbane meeting October 2004 and through further contact with individual working group members, was to target framing and social learning as interdependent methodologies for bringing about new and improved frames or interpretations of extension role and function in rural and regional Australia. A further aim was to secure (for some time) coherency among key stakeholders within and relevant to the extension system, and

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correspondence between the extension system and the change environment particular to rural and regional Australia.

Unfortunately, through the latter months after the National Extension Policy Forum it became increasingly evident to me that the EPWG’s efforts (no matter how enthusiastic) seemed to lack the profile required to gain traction and entry within the wider extension/capacity building system in Australia. The funding knockback was a significant indicator and the waning level of energy in the ESWG further testified the fact that higher-order champions were needed to secure legitimacy in further negotiations about extension policy – in Australia and for NRM. The following account (see Chapter 10) relays events and interactions starting just after the forum as I aimed to engage a higher-order nested system in transitioning this negotiation to the management and policy domains of Government in Australia. Key to this transition were separate discussions with John James (as president of APEN at the time), with Gus Hamilton (as Chief Extension Officer in DPI&F) and Professor Frank Vanclay (as an academic in applied rural sociology) who each had a (different) interest in mobilising higher-order negotiations in extension policy.

Curiously, discrete feedback from a small number of stakeholders with access to CVCB and Land and Water Australia decision-making processes informed me that underlying the communicated reasons for the funding knockback was the belief by a couple of prominent figureheads that the instigation and facilitation of an extension policy process would best come from ‘outsiders’ rather than ‘insiders’. To test this feedback, Jess Jennings and I submitted a further application for progressing the national extension framework with a CVCB project call for tenders in June 2006. We knew that a range of other insiders had also submitted applications, complete with robust project plans, and we had consulted with a number of these (some of whom were state extension leaders). The result confirmed that this earlier feedback may have indeed been correct as the winning submission was from the Boilerhouse Team from University of Queensland, very much an outsider with limited extension history or experience (this is further detailed in Chapter 10).

9.2 Reflections and discussion

This section considers my involvement in the extension policy initiatives I helped instigate, taking particular focus on National Extension Policy Forum, outlined above along with deliberative processes prior to and succeeding the event. Key reflections are made on the effectiveness of using triple-loop-negotiation thinking and processes for organising, contributing to and facilitating multi-stakeholder processes detailed above.

In general terms the facilitation process, interactions and deliberations within this research episode were largely in line with (or inspired by) the triple-loop-negotiation model. While it was challenging to elevate stakeholders involved in the process to explicitly embrace and use the language and concepts of triple-loop-negotiation, the model did form a useful process management framework for organising and guiding interactions. Also in general terms, the consequences were in line with what I expected from my involvement with a voluntary, unfunded group, aiming to influence the challenging quest of improved extension policy in Australia. The working group processes more than met my expectations of becoming an autopoietic, self-organising and reflexive nested system. Naturally, I was quite disappointed with the ineffectiveness of drawing up ‘negotiation plans’ and the resultant issues these plans created when attempting to secure funding to progress negotiations. Broadly speaking, the triple-loop-negotiation action theory was appropriate to the situations encountered in this research episode, however my inadequate attempts to introduce the model to the working group arguably hampered its ownership by the group and its overall effectiveness.
These general reflections are covered in more detail in the following and divided into those aspects that worked, those that did not work and further aspects for consideration that emerged through the process.

9.2.1. What worked?

**Improved understanding of Organisational Change Cycles** - The Lazy-Eight lifecycle model of organisational (and ecological) change (see 6.3.3) was completed in at least three different cycles in this episode, within the initial policy workshop, within the larger policy forum and then in the succeeding working group activities. In each of these phases, a collection of stakeholders came together through the instigation of a ‘leader’ (or leadership group), were provided with the opportunity to make choices about the next phase of extension policy negotiations and made attempts to put agreed outcomes to effect, and subsequently reverted to state of inaction and/or confusion. It may be argued that the closed linearity of the Lazy-Eight model did not represent the outcomes of each of these cycles, with outcomes of each iteration leading to a new Lazy-Eight but at a different scale of social-aggregation. The first iteration was a small APEN group, the second was a national level forum and the third was within the working group itself. The representation of the Lazy-Eight was more as a spiral than a closed system. The adaptive management framework (see 6.3.4) provides an excellent means of interpreting the myriad of decision-making and negotiation processes throughout the design and execution of the three phases. It was unfortunate however that at the time (2004) I did not see the value in discussing and drawing similar conclusions with others.

It was also unfortunate that the working group had not pre-thought the implication of the adaptive management cycle (see 6.3.4) or considered possible scenarios and eventualities at different stages of the Lazy-Eight model (also see 9.2.2 below). Also, it may have proved beneficial if adaptive management and the Lazy-Eight had been presented to the working group and possibly at the forum in order to discuss and consolidate understandings on the natural phases or organisational change that the extension system and extension policy may expect to encounter.

**Network building** - My primary concern in instigating this process, closely helped by a number of working group members with enthusiasm for advancing extension, was the risk of beginning a series of interactions and gaining some momentum, only to have them fall flat with a resultant double-negative impact for all concerned. Firstly, the negative effect of a non-result, and secondly the negative impact of extension stakeholders being deterred from attempting such processes again. With these risks in mind I attempted to use my developing triple-loop-negotiation thinking, both in helping design interactions within the working group, as well as when considering connections with wider extension stakeholders. The conversations with Malcolm Letts, Jeff Coutts and Tony Gleeson were instrumental network building activities that initiated a support network (Network building in support of change), as a prelude to having a new conversation about extension amongst the broader practitioner and extension stakeholder nested system. Indeed, numerous conversation amongst members of the working group were also instrumental to building a dynamic, creative and enthusiastic core of people, albeit for a period of time, who sought improved coordination in the wider extension system.
To some extent, this overall approach to network building could be considered as successful, with a considerable number of extension practitioners aware of the process, key stakeholders involved and anticipating further progress in the development of a National Extension Framework for Australia. It was unfortunate that the number of active members in this network remained quite small following the forum and did not see value in maintaining links following funding knock-backs.

Despite the inherent value in extension practitioners banding together and developing robust negotiation plans and project proposals for developing a National Framework for Extension, it seems that decision-makers are reluctant to invest in extension practitioner attempts to improve extension policy. Despite the working group negotiating how best to negotiate with key stakeholders, some funders possibly saw this as too self-serving and better handled by a third-party without vested interests in extension. This does seem a little odd however, if we draw comparisons with other professions and approaches to enabling continuous improvement (e.g. dentists, teachers, mechanics – each of whom has professional bodies constituted by people from that particular discipline).

A plausible alternative to the self-serving risk of a nested system made up solely of extension insiders might be to engage with significant and diverse outsiders in a multi-stakeholder process. This would help legitimise the push for improved extension policy coherency and correspondence through the eyes of stakeholders from other disciplines and/or paradigms. When this diverse nested system is then encouraged to negotiate how it would negotiate amongst members and with other power players and policy gatekeepers it would be coming from a much wider epistemic base. It will also be important to include stakeholders particularly from the predominating narratives of economics and law (as per Röling and Jiggins pers.comm.). If some of these key influencers are encouraged and enabled to be involved in the process of developing a national extension framework, their perspectives and support will then be negotiated and included in future project and funding applications.

**Enthusiasm and creativity** - Andrew Campbell’s words ring true when I recall a telephone conversation in March 2004. “This is really the start of a five to ten year policy process if it gets underway effectively. But with this current approach, maybe we can deflect movement for the next two years, but we need to think clearly about impact we can have on this inexorable trend towards NRM and regionalisation” (Campbell 2004). The considerable optimism and enthusiasm shown by the working group earlier in 2004 contested Campbell’s notion, however the failure to secure funding and the perceptibly slow progress since the forum saw his position vindicated. While one could argue that efforts to reframe extension policy and practice in Australia promise to be long and arduous, my experiences in 2005 through contacting State Leaders, interactions with the working group and close discussions with people like Frank Vanclay, and Beth Woods saw a latent enthusiasm suppressed due the current language frames. It was surprising to find that there continues to be considerable enthusiasm for “re-discovering extension” (Woods 2005; Longson 2005). Somehow, this enthusiasm needs to be directed or facilitated for enabling the multi-stakeholder interactions and decision-making processes to take place that so many parties are insisting on. The ongoing question continues to develop though. What is this pathway and who instigates the process?

The working group that delivered the 2004 National Extension Policy Forum was quite successful in tapping into the enthusiasm of stakeholders as evidenced by the high numbers that were eager to attend the Sydney event. This was a fundamental success that demonstrated the considerable interest and energy that a wide variety of stakeholders have for improving
extension policy. However drawing on the pentagon model (Figure 8.12), the creativity aspects of the gathering were not effectively enabled, and while I considered that these elements were inextricably linked and formed one discrete segment of a model for facilitating multi-party negotiations, they clearly need to be regarded separately. These two aspects may be interdependent, however, but simply because one aspect (in this case harnessing enthusiasm) is successful, it does not automatically follow that creativity will also be enabled. This was an important learning.

Another outstanding approach to stimulating creativity, and indeed harnessing a potentially volatile and conflictual confrontation on the second day of the forum, was Gerry’s storytelling process. Participants were prevented from contributing their differences of opinion in a manner that would surely have destabilised the remainder of the forum. Instead they were encouraged to channel their thoughts into a fictitious type of story. This process had a threefold benefit. Firstly, it defused the potential for confrontation amongst dissatisfied participants. Secondly, it focused attention and enabled these people to include their discontent in a creative story in a manner which hearkened back to the wonder of childhood storytelling. Thirdly, it re-harnessed the enthusiasm of the forum, at least to a degree, and enabled people to continue and move from conflict into a far more positive frame of mind.

Uncertainty – Even though uncertainty could have been targeted more effectively in this episode, it did provide a strong backdrop for instigating extension policy interactions. It was not surprising that a large degree of uncertainty prevails in the Australian extension system, and the working group meetings held early in 2004 saw members not wanting to defend certainties but to openly support efforts to reduce uncertainties (at least for the group).

In respect to the negotiation outcome it appears that, initially working group members were far more optimistic about achieving a desirable outcome than the majority of forum participants. The prevailing uncertainty about the actual outcome of the Sydney forum arguably thwarted working group enthusiasm for progressing activities. A key learning is that a collective need for reducing uncertainty is a fundamental driver underpinning enthusiasm for interaction of stakeholders in the Australian extension system. Arguably however, exposing these uncertainties amongst these stakeholders requires learning and negotiation processes for progressing toward convergence and resolution.

From almost all interactions within this episode there seemed to be general certainty that a satisfactory result would be a win-win outcome for all stakeholders within or coupled with the extension system. The fact that progress was slow succeeding the forum may be attributed to the fact that participants became more uncertain about the possibilities of actually winning. The working group may not have fully considered the depths of this uncertainty or the ramifications of exposing it at the forum. It could be argued that the forum and the preceding processes and following activities, made these levels of uncertainty more explicit within some key players in the extension community. It terms of reducing uncertainties in the background or motives of other actors an open exploration of understandings and agendas of different parties within the working group as well as at the forum may have increased certainty around what each stakeholder really wants and enabled more effective outcomes.
Also, uncertainties about the working group skills and extension stakeholders’ overall capacity to deal with the situation would arguably have been raised within and subsequent to the Sydney forum. The working group had not foreshadowed the risk that participants may be uncertain of the workshop processes themselves (e.g. the end of the first day in Section 9.1.4) as a means to achieving the outcomes advertised in prior documentation. The working group had quite unwittingly designed a process assuming that because they themselves were extension practitioners, other extension stakeholders participating in the workshop would be comfortable with and not need to discuss the methodologies used. Coupled with this, uncertainties surrounding the ability of the process to capture information or observations sufficiently to bound explanation and interpretation were not dealt with effectively. A recording point, such as a sheet of butchers-paper at the forum, a dialogue box on the website, or some other means of making known the key areas of uncertainty within negotiations may help illumine these undiscussables (Dick and Dalmau 1999) and identify particular concerns stakeholders had for effectively enabling understanding of extension issues amongst parties within the negotiation process.

Overall there was little concern expressed around uncertainties relating to conflicting information sources, with the briefing papers, which were aimed at exploring contextual issues and information in the Australian extension system (Table 9.1), being well received. Also opportunity was provided in participatory activities within the workshop for participants to identify particular information sources they considered important.

One critical issue that was not well explored through this episode were the uncertainties over competing or fragmentary theoretical frameworks. One may suspect that the discontent that arose through the workshop was an expression of the frustration some participants had about the lack of clarity of the theory underpinning ‘extension policy negotiations’, as this term had been used on numerous occasions. Furthermore, the rejection of funding bodies for implementing projects that used this term may have been further evidence of uncertainty around the theoretical underpinnings. In further research it will be important to make efforts to expose and consider foundational theoretical frameworks.

Frame Analysis – In the following section frame analysis was an exercise that was carried out by myself ex post facto, largely due to an incomplete theoretical understanding and a lack of confidence that conducting frame-analysis exercises with participants and working group members would be effective.

From my perspective, important frames that emerged from many interactions in this episode are the issue(s), characterisation, identity and power frames (see Section 8.4.1). The issue(s) frame is critical due to wide interpretations of the actual issues facing the coordination and delivery of effective extension services. The forum exposed an unforeseen tension in how different stakeholders framed the extension ‘issue’. Some framed the issue from an RD&E (research, development and extension) perspective and saw extension as the poor-cousin of research and the target of disproportionate funding and policy support. Others framed the issue from a professionalism stance, viewing extension as a poor career choice with limited infrastructural support or pathways for progression. And others saw extension as a dwindling support base that was historically funded by State Governments for achievement of State level political objectives.

Analysis of characterisation frames sees that they are closely linked with the issues frames. As one might expect, depending on where different stakeholders worked, many participants at
the forum were characterised by others according to what aspects of extension were relevant for them. The working group was guilty of characterising many of the invited guests and presuming that they would have particular concerns with regards to extension policy. Surprisingly for the working group, some invited participants (e.g. the CMA and Women’s representatives) did not share the same perception and, in turn, presented information that demonstrated their characterisation frame of the working group, assuming that members were all government agricultural extension staff.

Another interesting frame in this episode is identity, with many participants in the working group and forum diverging from their customary ‘institutional identity’ which is underpinned by particular beliefs and values held by staff at the organisation they work within. Within interactions, it was encouraging to note that the majority of participants in this research episode placed for more importance on presenting their ‘extension identity’ and accordingly framing others in terms of their extension identity rather than their institutional identity. Surprising for me was that at least two working group members shunned their day-to-day institutional identity regarding extension, as this was miss-aligned with their own personal beliefs.

Directly linking with identity is the power frame, where the overwhelming self-perception within the national extension system is a sense of powerlessness in being able to effectively influence improved extension policy. At the workshop and forum within this episode, the overarching imperative was for extension to assume more of a power position in the perceptions of stakeholders and funders. Arguably the outcomes of the forum were poor in helping extension practitioners themselves to reframe this perception of powerlessness into one of interdependency, solidarity and power. Consequently, there was little progress in helping stakeholders and funders reframe the extension meme to include the position that the national extension system has the human resources, practise base, as well as theoretical and policy frameworks to be in a position of (negotiating) power with other disciplines such as science or law. Or in other words, that extension has the power to sustain itself and prosper as a discipline in its own right. One learning from this analysis is that consideration of issue, characterisation and identity frames is important for designing and facilitating triple-loop-negotiation processes for deliberation of extension policy. Coupled with these frames, language is also critical because the extension system, arguably to its detriment, continues to use language that is exclusive and as some external to the events in this episode have said, elitist or non-conformist (Craven pers.comm.; Right pers.comm.). Although many efforts have been progressed aiming to strengthen the extension system and integrate (or indeed elevate) its standing with other disciplines both in Australia and internationally, even long-term extension supporters and academics contend that the extension system trips over its own language. Jeff Coutts, amongst others, was adamant that negotiations amongst extension stakeholders needed to embrace the language of capacity building, largely with the aim of strategically reframing perceptions of both terms. Based on this assessment there may be value in linking the idea of framing with that of memes (building blocks of a frame), and then with language (building blocks of a meme). This may enable the extension meme to take on new meanings and be strategically reframed.

Although brief, this frame-analysis serves to show that investigation of frames and framing has shown that the working group did not spend adequate time investigating and considering the ways in which different stakeholders interpret various aspects about extension. Deeper investigation may have in fact identified the need to isolate effective methods for collectively
exploring issue frames and learning from power frames that extension stakeholders possess. These findings would have major implications for the design of frame analysis activities, particularly when attempting to influence and negotiate extension policy outcomes. In further research it will be important to investigate and analyse these frames in more depth, ideally within a facilitated participatory process.

**Social learning** - From a social learning perspective, many stakeholders throughout this episode have agreed that there are considerable gains to be achieved through better “coordination within the extension system” (Campbell, Coutts, James, Jennings and Vanclay 2003-2006). Indeed, this was the principle underlying aim of the 2004 National Extension Policy Forum in Sydney. In social learning terms, this strongly relates to improved coherency within the extension system and correspondence with its domain of existence, rural and regional change processes in Australia. The social learning quest of a National Extension Framework remains to move key stakeholders from multiple to collective or distributed cognition regarding how extension is interpreted as a policy instrument in its own right and in combination with other instruments to achieve desired changes. While the range of activities relating to the Sydney Forum and further efforts to develop a National Extension Framework were fraught with diverse interpretations of extension’s current position and wide-ranging agendas regarding its future, it is arguable that a degree of social learning took place. The challenge remains however, to elevate this social learning to critical nested systems (Röling and Jiggins pers.comm.) within the wider service-delivery environment.

**Triple-loop-negotiation** – While overall, triple-loop-negotiation assisted me with the facilitation of interactions throughout this episode, it must be stressed that negotiation thinking was only used by the working group later in the process. The triple-loop-negotiation model (Figure 8.12) only really became explicit within the extension working group conversations and deliberations through the later stages of interactions in 2004. This was largely because as interactions commenced, I perceived the need to build trust, confidence and goodwill within an effectively functioning network before challenging the group to consider explicitly using the negotiation language and concepts. A particular focus on developing relationships was crucial for securing communicative space within the group and thereby garnering support for concerted action. The highly inclusive and participatory planning phase for the National Extension Policy Forum in Sydney was testament to the collaborative (integrative) approach that the group implicitly progressed in the earlier phases of the group process. The negotiation plan that the group developed in the Brisbane meeting (October 2004) demonstrated progress toward consideration of conflict and negotiation in the next steps. This was undoubtedly bolstered by the perceptible conflicts of interpretation and understanding evident in the Sydney Forum.

It could be argued that the triple-loop-negotiation model supported autopoiesis in the design of the national forum as the working group spent considerable effort in deciding how agenda items and their associated processes would contribute to influencing extension policy. Improved self-organisation within the national extension system was a fundamental aspiration of the working group and deemed by all concerned to be a critical element of an improved profile within, and external to the extension community. Autopoietic self-organising groups within the extension community, which are largely concerned with different aspects of extension policy and practice, were seen as essential to progress continuous improvement of the wider extension system. The facilitation of multi-stakeholder negotiation processes to achieve this within the working group, while not explicitly termed as such, was the focus of much debate.
My longer-term assessment is that adaptive management, Lazy-Eight and triple-loop-thinking are useful means of interpreting and analysing, if not influencing, the constructivism-memetics dialectic in extension policy negotiations. The fact that there was large interest in the forum, with considerable input from key stakeholders into the development of a draft national framework for extension would suggest that substantial enthusiasm was generated in the building the replicating strength of the extension meme and indeed in influencing how varied stakeholder groups construct their understanding of extension. The language used by participants throughout this research episode at no time caused me concern that there was underlying discrepancy about the value of the extension meme or the need for stakeholders to construct a radically different meme for extension to survive. Perhaps in retrospect, it was my mistake to assume that collective perceptions of the extension meme were sufficiently aligned for enabling a collaborative, enthusiastic and creative autopoietic body to progress extension policy negotiations beyond the forum. A closer investigation of how stakeholders constructed their understandings of the extension meme may have highlighted earlier in the episode the risks posed by divergence in how people understand and value extension. This would have helped with the design of negotiation processes by the working group, and may have prompted the need for contingency plans to deal with emergent unease surrounding these divergent understandings.

The triple-loop-negotiation model that I presented and used for facilitating working group interactions after the 2004 forum was quite successful in gathering thoughts for preparing a negotiation plan. The pentagonal model (Figure 8.12) was easy to explain and working group members were very supportive that we wanted to be in a reflexive (third-loop) position when we took the next steps with a funded project. The funding knockback however, and lack of forward movement in progressing this project seemed to indicate that the triple-loop-negotiation plan was not as palatable and did not align with accepted frames on the identity of the extension meme and the language that may be used by those endeavouring to influence and improve it (see reflections on negotiation plans below).

One aspect of the triple-loop- negotiation model that did work in an implicit way was the use of presented papers in the forum as exploratory thought pieces that engaged over a dozen minds prior to the event, and at the forum engaged everyone in collective preparation for a multi-stakeholder negotiation processes. These presented papers were aimed at sparking creativity and challenging extension practitioners and stakeholders to move from a localised equilibrium (status quo) to a more national one. Or in social learning terms, from multiple cognition to distributed cognition. This use of exploratory thought pieces is closely aligned with the design conference concept (see 8.7.5) and links with the Negotiation Task list Table 8.1.

9.2.2. What did not work?
In the following sections, different aspects of the Triple Loop Negotiation model that did not work as expected are discussed.

Interactive Negotiation – It could be argued from a negotiation perspective that the ultimate aims of the extension forums were never reached. That was, to embark upon a collaborative, interactive negotiation process internally in order to resolve differences within the national extension system, and then externally with stakeholders requiring extension to resolve extension policy dilemmas. On the one hand, the working group was highly enthusiastic about resolving differences and dilemmas internally within the group and externally across the
national extension system, and the negotiation plan(s) developed were elaborate and strongly focused on the facilitation of collaborative, integrative negotiations. On the other hand, the ultimate outcomes from the forum were some agreement on elements of a national extension framework, a brief report on proceedings and at two failed project proposals which remained unfunded. The subsequent steps to begin integrative negotiations did not eventuate. Quite possibly, if the ‘choosing the best negotiation approach’ matrix (Figure 6.4) had been presented more explicitly in working group engagements and at the forums there may have been improved agreement with and ownership of integrative negotiation as a collaborative way forward. Or, it may have been an unreal expectation for collaborative negotiation to have been tabled at the forum, and that this may have been made more explicit in the subsequent funded project phase.

Action Science and Theories of Action – The ultimate aim of this episode was to disturb the status quo through action, and influence improved theory and extension policy in Australia. Arguably, that aim was not achieved, at least in the short term. When we consider the espoused theories of many key participants in this episode, it can be argued that there was considerable dissonance between the espoused-theories that people claimed to follow and their theories-in-use or those that can be inferred from actions (see 8.3.3). The biggest offender here was likely to have been myself. While I often espoused theories of interactive negotiation-in-action my actions reflected more that I was learning-in-action. Action Science works toward reducing the dissonance, discomfort or conflict from a lack of consistency between our ‘espoused’ attitudes (of an individual or institution) and the ‘action’ or behaviour exhibited.

Reflection on some of my own information chains (Section 8.3.6) identifies critical mismatches in what I thought others were telling me and in how I reacted to their message. A key example is with the feedback Andrew Campbell gave me about the negotiation plan I had developed with Jeff Coutts. While I had discussed my intentions with Andrew on the telephone and interpreted that he was supportive, I was somewhat defensive and dismissive of his frank and less-then-positive assessment of the negotiation plan. So I carried on regardless and assumed that his support had waned. This influenced me not to contact Andrew much through the working group deliberations and not to engage with him in events subsequent to the forum. In Andrew’s information chain, his observation of my actions would arguably lead to him forming assumptions that were directly opposite to what I had intended. If I had possessed the confidence and fortitude to pursue a high inquiry and high advocacy (see 8.3.8) approach with him, this mismatch in intentionality may not have occurred.

Networking – Arguably network building serves two main purposes:
- building a support coalition
- mobilising diversity to open up new space for solutions (by connecting to new players/outsiders)

It appears that in this episode efforts have failed to sustain effective outcomes in relation to either of these purposes. In the latter stages of the process unfortunately, only a limited number of stakeholders wider than the extension practitioner networks (i.e. APEN and some agency extension staff) were aware of, or had considered the outcomes from the Sydney Forum or were contributing to further actions to advance extension in Australia. Communication with the wider policy environment (as per Leeuwis 2004), was not well progressed. Another problematic aspect of the Sydney Forum fed back through a number of participants was the mismatch between the diverse expectations of participants and the actual
agenda and aims of the gathering. As Greg Cock from the working group suggested some months later, “We needed a much tighter and clearer goals statement …There were too many people there who were upset because their own personal aims were not being met” (Cock pers.comm.). As a consequence there was little prospect of a support coalition resulting from the forum.

While the working group had considered at length the most effective extension stakeholders to be involved in negotiations and the most appropriate organisational levels, it may be argued that there were overly ambitious expectations of participants’ capacity to form complexes (integrated networks) and/or natural innovation systems (see Rycroft and Kash 1999 in 6.2.1). While we assumed that participants would naturally gravitate to become members of a complex or natural innovation system with a “locus of self organisation” there was inadequate time foreshadowed in negotiation plans to allow effective network building. Nor was there a focus on network development beyond the forum itself, with the only exception being the promise to continue the working group. As a result, even though the working group had considered the appropriate diversity of people to be involved there was limited scope for mobilising new creative outcomes and networks.

While subsidiarity (or governance of extension systems in Australia at the lowest effective level - see 6.4.3) was a distinct possibility from the forum, this was not progressed further as a funded project but may have been achieved through SELN (see Chapter 10).

**Process Management (including leadership and facilitation)**
The working group’s capacity to manage the agenda in an adaptive manner was challenged in Sydney. When participation became disorderly on the first day of the forum, the working group had not pre-thought a contingency plan, and because of the flat leadership model exercised in group proceedings, did not have an identified leader or coordinator to guide an adaptive process. This was ostensibly my role, however I realised at this time that I had not sought the group's prior permission to assume a leadership function in times of difficulty or uncertainty. In the evaluation of the forum many participants responded that they anticipated the complexity and unpredictability of the two days, however some regretted that there was inadequate anticipation of this by the working group. The need to pre-think the group approach for adaptive management of such complex negotiation processes was a significant learning.

Arguably, if a conflict analysis (as per Negotiation Task List in Table 8.1) had been performed by the working group prior to the forum there would have been increased capacity to develop contingency plans and be able to adapt proceedings in response to emergent tensions and disruptions. It was an oversight also not to include a conflict analysis process at the forum as it would have brought forward latent/explicit divergent opinions and provided a clearer basis on which to facilitate negotiations.

**Negotiation plan** – The development of a ‘negotiation plan’, along with the explicit use of the word ‘negotiation’ and the language of negotiation in planning engagements through this episode appears to have been challenging for many participants. The plan was certainly seen by Andrew Campbell as having “no hope of success.” It was a mistake not to pay heed to this
advice and plan to be ready for when a window emerges in the policy arena, rather than trying to plan the policy changes. Also, it was more than likely a key deterrent causing the funding knockback when the working group attempted to advance ‘negotiations’ with key policy stakeholders. A key learning from this may be that one must be prepared for conflict and negotiation, but not necessarily explicate this idea through conversation and documentation. Also the notion of a ‘negotiation plan’ did not find the support that I envisaged. While I had intended for ‘negotiation’ to take the place of ‘planning’, thereby improving adaptive management and responsiveness within the extension system, it was not feasible to foreshadow detailed extension policy negotiations in a long-term plan. The long term process outlined in the detailed plan may have been a bit discouraging, quelling rather than generating enthusiasm. It appears that in such groups and circumstances we cannot plan a longer term process.

An important consideration is the predilection that working group members (myself included) had for developing plans – for taking a planned approach. Likely this is a result of conditioning through project management and organisational change processes that each member was exposed to through their professional history. Preparing a plan with other colleagues and stakeholders becomes second nature and therefore, without considering the range of means to influencing extension policy, the group gravitated toward a planned approach. There was great concern for developing formal frameworks, project proposals and negotiation plans to make extension survive as a meme. It may have been useful to consider that agreeing to simply do extension, keep extension alive in conversations, reframe it in conversations, publish case studies and good news stories and actually perform or enact the things that were discussed in the forum may have been a very useful outcome. Improving extension policy through action rather than through a plan.

**Autopoiesis and limitations in learning** – There was strong evidence to suggest that interactions in this episode were almost exclusively focused on defending the value of extension rather than proactively seeking new thinking, thus new governing variables underpinning extension. It appears that people were reluctant to alter the values they ascribe to extension, but conversely were attempting to consolidate collective perceptions of extension.

From my own perspective, in being an advocate for extension and wanting to improve the coherency and correspondence within the extension system for NRM, I have been less willing to consider thinking outside my acceptable range. I would suggest that this would have been a common perspective for a number of people at the centre of the forums in this episode. Notably, open criticism of ‘driving extension from within’ and ‘extension is not the main game’ by Andrew Campbell, and the fact that ‘extension and extension policy are not sexy’ by Tony Gleeson, were not proactively dealt with. If we had questioned more deeply the governing variables that were driving key people within the process, I believe we may have been better able to invite outside perspectives into the conversation and enable a better response to these and other critiques of the exclusiveness of extension.

On the other hand, however, it could be argued that consolidation (or ‘norming’ after Tuckman and Jensen 1977) within the national extension system was an essential step for the self-realisation that there is a need and considerable value in considering other values or frames (such as capacity building or community engagement). As witnessed at the national forum in Sydney, there is a risk that internal dissension within the national extension system may stand in the way of forming a collective position on extension policy for Australia, if
alternative value systems and governing variables are introduced too early into the conversation. I would suggest that when extension as an autopoietic system has consolidated its self-identity nationally and has improved its internal coherency it will have be better placed to enter the ‘storming’ phase of group development and take on ‘sexier’ and outsider perspectives. It appears that there is a need for leadership for extension at a national level, and at least for the next phase of group development, this may be better to come from insiders. This is only of course, if one believes that a system can be changed from within. I believe the extension system in Australia can.

9.2.3. Emergent learnings from national extension policy events

Following are a number of conclusions from this research episode regarding the use of the triple-loop-negotiation model as an explicit guide for the facilitation of multi-stakeholder extension policy negotiations:

1. My understanding of, and confidence in advocating the value of triple-loop-negotiation was a key impediment to successfully presenting the model to participants in this episode.

2. Explicit use of the triple-loop-negotiation model, in combination with overt use of negotiation language, was not an easy tool to use for designing and facilitating multi-stakeholder negotiations (This may have been a consequence of the previous point).

3. However, taking an implicit triple-loop-negotiation approach to developing and facilitating the actions of a working group, without explicitly using negotiation language, was effective for designing a larger negotiation process and strengthening the position of the group before opening wider negotiations.

4. The triple-loop-negotiation model is a workable framework for thinking about and analysing interactions and assessing the value of taking a negotiation approach.

5. Considerable enthusiasm exists within the national extension system for influencing extension policy, with latent creativity to look for new solutions, however the approach taken in this episode did not achieve the expected result, i.e. development of a National Extension Policy Framework.

6. Network building was successful on the smaller scale within the working group, however inadequate networking activities at the wider scale within the forum meant that mutual feelings of interdependence did not develop and the capacity of the national extension system to improve the power position of the extension meme did not improve.

7. It appears that considerable relationship and trust building may be required before negotiation language and the triple-loop-negotiation model can be comfortably presented and used within a multi-stakeholder negotiation setting.

8. Learning through action it appears that taking a planned approach to influencing extension policy, and making concerted effort to develop ‘negotiation plans’ and communicate these with other extension stakeholders and funders, is problematic and prone to encountering many barriers.

From this chapter it has been evidenced that the triple-loop-negotiation model developed more comprehensively in Chapter 8 provides many useful tools for conceptualising and analysing deliberative, multi-stakeholder processes. However, it has also been found to be quite difficult to use explicitly with other participants in a negotiation process as a guide to designing and facilitating interactions and deliberations. Although this was also found in Chapter 7 with a simpler approach, and further research was conducted in Chapter 8 into developing a model for triple-loop-negotiation, introducing these concepts for enabling reflexive and inclusive design of a negotiation process remains challenging. Based on these findings, a revised research question for the following episode is:
What is the impact of using the triple-loop-negotiation model as an implicit guide for a facilitator to operationalise (without using negotiation language) identity building, feelings of interdependence, autopoiesis (self-organisation) and strengthening group position prior to progressing negotiation with others?
Chapter 10: Activating the SELN nested system

This chapter recounts the development and preliminary achievements of the National Extension Leaders Network (SELN) comprising State and Territory extension leaders and influencers from across Australia. The outcomes from the National Extension Policy Forum in 2004 (Chapter 9) as well as emergent perspectives from preceding chapters, led me to commit efforts to initiating SELN as a strategically positioned nested system in the wider Australian extension/capacity building system, and furthermore, to directly involve myself in its planning processes and activities. The focused line of inquiry addressed by this chapter was into how a nested system of extension leaders and influencers would negotiate and help influence improved coordination, collaboration and ultimately coherence and correspondence within the Australian extension system. It appears that in Australian history there has never before been a collection of leaders in the national extension system that have decided to form a discrete group (or self-identifying nested system) with the aim of influencing the wider system. At a theoretical level, this chapter builds on learnings in Chapter 9 to assess the value of using the triple-loop-negotiation model developed in Chapter 8 as an implicit guide to designing and operationalising multi-stakeholder negotiations. The major differences to previous chapters is application of the model in an implicit manner without explicit use of negotiation language. Also, the model is used within a low-conflict homogeneous group in preparation for negotiation with divergent groups and stakeholders across the wider national extension system.

This research episode presents these two activities in autoethnographic sections.

10.1 Creating a higher-order nested system to influence delivery of NRM extension

By the start of 2005, it was becoming increasingly clear that institutionalising extension for NRM in Queensland in a coordinated manner was an intractable issue. To improve the legitimacy of investing in the extension policy instrument, divergent perspectives that prevailed at different systemic levels needed to be addressed. My principal aim for instigating SELN was to operationalise triple-loop-negotiation thinking and action within extension leaders (managers) at a national scale as a precondition for influencing and mobilising higher level discourse, improved extension policy development and extension service delivery, particularly for NRM. This wider discourse would then provide better context and knowledge to support NRM extension negotiations within DNR&M. The reason for using a negotiation approach from the outset, with an homogeneous low-tension group, was to prepare this group for going to battle with state and national extension stakeholders and funders.

10.1.1 Context and conceptual link

This episode reviews efforts to mobilise extension policy negotiations at a level within the hierarchy of nested systems (or holarchy – following Koestler 1967) that has the potential to significantly influence systemic change and improvement in the wider Australian extension/capacity building system. Drawing on concepts from intermezzos I and II, and the outcomes of Chapter 9, this episode aimed to investigate and further develop the network building element within the triple-loop-negotiation model. Moving beyond the conceptual misgivings of previous episodes, where it was unclear how to initiate interactions around
extension policy, the activities in this episode enable first-hand interface with senior extension stakeholders that have the positional power to negotiate extension policy as a key function of their substantive roles. Collectively, state extension leaders would potentially represent a national scale position on extension service delivery as the largest investor in this policy instrument (at least in primary production). This should provide an alliance of state extension leaders with a significant mandate for improving coordination, collaboration and effectiveness of the wider extension – capacity-building system and sufficient influence to initiate the necessary multi-stakeholder processes to achieve this.

The State Extension Leaders Network provides an ideal environment and opportunity to investigate further the triple-loop-negotiation model as a tool for preparing an homogeneous group for multi-stakeholder negotiations with differing parties and how this thinking may apply to the bureaucratic systems and professional environments of senior State Government executives.

Question

- What is the impact of using the triple-loop-negotiation model as an implicit guide for a facilitator to operationalise (without using negotiation language) identity building, feelings of interdependence, autopoiesis (self-organisation) and strengthening group position prior to progressing negotiation with others?

Following is an autoethnographic account of my dealings in initiating and participating in SELN with the quest of inquiring into, negotiating and endeavouring to influence (NRM as well as agricultural) extension policy discourse in Australia at the interface between State and Federal government and with industry.

10.1.2 Autoethnography: Initiating the State Extension Leaders Network

Note: While some SELN activities occurred in overlapping timeframes to the National Extension Framework discussion (Chapter 9), they are reported here as a discrete section.

**Interesting Moves – Victorian and NSW State Extension Leaders visit Queensland**

Not long after the National Extension Policy Forum, Carolyn Cameron from Victoria and then Ellen Howard and Geoff Warr from NSW made the trip to Queensland to investigate extension systems and service delivery models (in September and October 2004 respectively). One reason for their visit may have been that they perceived some enthusiasm for extension north of the border. Both parties relayed that they were undergoing significant State Government reviews and restructures and were interested in seeing other models in Australia. Carolyn had received a considerable budget allocation and was deciding how it should be used. Ellen and Geoff, while not in the same position financially, were also seeking the best means to allocate resources to achieve effective outcomes. This was interesting for me because I thought that extension in Queensland was in a state of decline and quite dysfunctional within State Government with increasing emphasis being placed upon industry and regional body service delivery partnerships.

Carolyn was hosted by Hester Fromm in DPI&F and I was invited to participate in the DNR&M presentation of our extension delivery model. I was interested to see what other representatives from my department were invited, and also what they would present. In summary, eight DNR&M staff attended and the RWUE model based on industry service delivery was discussed (see Chapter 7) and extension support given to Local Government for Land Protection Services was also tabled. Links with regional bodies for developing
capacity building strategies were mentioned, but on the whole it was communicated that
delivery from that department was very minimal. Carolyn was also given separate
presentations by DPI&F and EPA.

Geoff Warr telephoned me in September and asked if I would host their visit on behalf of
DNR&M and organise a three-day exploratory tour. He said that: “Ellen was at the Sydney
Forum and really thought it would be worth visiting Queensland to see what drives you folks
up there.” I organised meetings with DPI&F executive and regional staff (including
Toowoomba and Nambour), DNR&M staff, the Centre for Rural Research and Innovation
Queensland (CRRIQ at Gatton) and consultants (Coutts J&R). Ellen and Geoff hired a car
and I spent three days with them investigating service delivery systems, issues and
perspectives of Queensland agency staff and also scoping ideas and solutions.

The highlight of this visit was a discussion at breakfast in a Toowoomba café with some other
Queensland extension identities. Ellen briefly described the context of service delivery in
NSW. “We have been through a struggling period with many extension staff being
rerenched, and then re-hired when the political backlash was severe from rural electorates.
So we have had the political complications to deal with, and now the Director General is
telling us that as an organisation the department in useless and we need to get our act
together. So, basically, Geoff and I are trying to scope out how in a restructure, monitoring,
evaluation, intensive industries, regional district advisors, who all fit into the extension
system, can be best positioned.” Gus Hamilton was whimsical: “There are huge issues with
political perceptions and understanding, we are as much about managing the politics as
anything else. Meeting the political needs of the party in power is crucial for planning
extension activities. We have to face the fact that really we are dealing with management
staff without extension experience. The issues that they face are that they cannot easily
convert extension success into political reality. We need to help them with this. You know, at
our level we need to manage extension to meet the politics of the day. We have to sell up
and down in the organisation. Extension is relevant to farmers and to politicians. We need to
have processes in place to upskill institutional stakeholders both ways.”

Then Gus commented on the funding sources for extension in DPI&F. “We are currently fifty-
fifty funded, base to external funding, and we are working with the purchaser-provider model.
We have had a fair change in delivery systems through history, though! With the extension
strategy that was developed in DPI in 1990, the position taken was that we need to get out of
ad hoc extension advice and move toward group-based extension. Six years later, the call
centre was launched with the key point of contact for producers being to dial in for
information. And now, after we have been down the road of incorporating extension in
farming systems, we seem to be moving back to the transfer-of-technology model. Why?
Because management do not have the familiarity and understanding that they need.”

Ellen nodded her agreement and added: “Well, we completed a NSW extension review
earlier this year and I am still wondering how it links in with management. We decided to
pursue a ‘flagship projects’ idea and subsidised a number of activities that gave good
visibility. We also sought to increase the project focus of extension and improve our linkages
with CMAs, our equivalent to your regional NRM bodies. Another key strategy was to build
an extension network and target a number of champions to support this. With our project
focus, we are particularly targeting risk management, biosecurity and water management.”
Gus was of a different mind considering the project focus. “Projectising too much can make
services less relevant to farmers”, he said. “We also need to think carefully about where
extension is relevant and where it is not. If Government targets profitable industries, then the
focus is to eliminate the inefficient farmers. Extension targeting better production does not
help this.” Jeff then re-entered the discussion. “In another example, if we look at CSR and
sugar, the industry decided that they needed a twenty percent increase in production through
the mills for industry survival. They asked themselves whether farmers are capable of
increasing productivity by twenty percent and decided that, yes, this was possible. Therefore they put in an extension program through BSES124 and grower productivity groups. Extension officers ran the groups. The industry asked me to evaluate BSES input and it actually turned out that there was a statistical economic benefit between five and ten percent received from extension inputs. “Yeah, that may be so, but the politics is always difficult”, Gus added.

Then discussion turned to struggles to continue with property management planning. “PMP [property management planning] is another model for extension delivery in NSW, but we are finding it difficult to build it up”, Geoff said. “We have a multi-entry system called Landscan where producers can enter at any level and we have a couple of groups just starting.” Gus replied saying: “The historic approach to PMP here is that we target group-based delivery, either we encourage farmers to self-select, or actually construct the groups, but at the moment that program has all but ceased.” It was interesting that two States had different models of a national initiative that had been delivered with the Decade of Landcare and both were now struggling under State-funded extension systems.

Then Gus turned the conversation around focusing on the fact that Ellen and Geoff were visiting, and that Carolyn Cameron had done so only a month prior. “It is interesting the situation that we have at the moment”, he said. “It looks like State governments are all restructuring now and service delivery among other things is under fire. And if we look at the political reality of this, it is even more interesting. The State Governments are all Labor and the Federal Government is the Coalition. I recently heard stories that the State Governments have been colluding against the Coalition and a group of apparatchiks have been meeting to plot machinery of government changes that will benefit the State systems. This is why there has been a re-structure domino effect through the different States. Now is as good a time as any to be conversing at a national level for State Government staff. At least the political adversarial stance is reduced for cross state dialogue and interaction.”

As Geoff, Ellen and I drove to Gatton, I reflected that this last point covered the general tone of the meeting as well as in discussions with the other parties. The key impression that I had from Ellen and Geoff's visit was that the praxis of extension in respective States was heavily dependent on the politics of extension, with particular emphasis on respective state Government priorities, as balanced against national funding programs such as NAP and NHT2. In light of the current political divide between the States and the Commonwealth, it seemed like an opportune time to be instigating conversations at a national scale, but with a point-of-entry at State Government level. It seems that I was not alone with these thoughts as a similar perspective was articulated by Ellen Howard in the car park after meeting with John James at CRRIQ. Ellen asked me: “Well, Greg, this morning’s discussions have been most interesting. We certainly have a fairly big gap in cross-border communications and interaction for extension, and the politics is a big issue that I haven’t known how to handle. I think Gus is right. We’ve not got a current network across State boundaries. Why don’t you call around the State leaders next year (2005) and see if we can’t get together to improve this?”

Designing the National Extension Leaders Workshop
I carried Ellen Howard’s suggestion through my study visit to Wageningen (Oct-Dec 2004) and additional theoretical investigations (Chapter 8). Naturally, my concern about finding the best point-of-entry for facilitating triple-loop-negotiations with the State Leaders group was high. I decided that the network building function, and the potential of a State Extension Leaders group was the key incentive at my disposal, particularly for working toward integrative negotiations. I also considered that, while the pragmatic and tangible needs Gus warned me about were of major importance, conversations that I had with Warren Straw from

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Victoria supported my earlier convictions that the networking function was a key requisite. Warren told me over the phone: “Yeah, apart from all the content function of such a group, and the links with decision-making processes, is the need for it to get started, evolve and sustain itself.” Frank Vanclay added to this when he met me in Brisbane a week later. I really wanted to discuss the functionality of a State Leaders group with Frank, as he was my only link with academia in Australia that had strong connections with extension, and had also been involved with the National Extension Policy Forum. “This group has a key function” responded Frank enthusiastically, obviously sharing a mutual interest in this possibility. “The institutional identity of this group and links with a range of stakeholders is going to be extremely important for thinking about a National Extension Framework. I think from first steps, we need to work toward a secretariat support function.” I understood that it was better for the group to come together on a more open mandate, rather than participating with already pre-defined positions on collective issues.

Building on my earlier conversation with Gus, I called each of the States to gauge enthusiasm for such a group. While I personally knew leaders from NSW, Victoria and Queensland, I sought advice from working group members and from Frank Vanclay and Arnette Manx for further names. In Western Australia, after taking advice from Alf Miller, an APEN acquaintance, I rang Ike Johnson, the Director General of the department. While I was nervous in approaching such a high-level public servant, I was surprised at his level of support. “This is quite timely, Greg. Very soon I am going to an executive meeting where we are discussing the service delivery issues currently presented to the Department through a recent evaluation study. This is a key issue for us. What is the best service-delivery model and mix for achieving the desired outcomes we are chasing? I will be sure to recommend that we have a representative from WA.”

From first discussions with the other recommended leaders, everyone was very supportive of the networking function served by the proposed meeting. In terms of continuing the negotiation process about useful agenda topics, I mentioned the request from Ellen Howard and some of the suggestions Gus had made. I also mentioned the 2004 Extension Policy Forum. As these conversations progressed, I developed a growing confidence that the network building entry point was effective. On this basis, I conveyed that my role in instigating the meeting was as an APEN representative concerned for the future and effectiveness of extension service delivery, and promised that the agenda development process would be inclusive via email.

After having identified collective and divergent needs and interests at the meeting, I intended to present the triple-loop-negotiation model as a conceptual and process tool for working toward their resolution in the short term, but more specifically, underpinning group development in preparation for future negotiation with other parties. The development of the group identity that Frank Vanclay mentioned will be improved if the group can reach some explicit arrangement on how it intends to negotiate with political as well as managerial, practitioner and client stakeholders.

10.1.3 SELN establishes its identity and role

The initial meeting took place in a motel in Melbourne on the 5th and 6th of April 2005 with representation from each State and the Northern Territory in attendance, together with a few other key individuals such as Prof Frank Vanclay. I had conducted an inclusive process of agenda setting via email and a list of topics was suggested as possible agenda items.

Some weeks earlier I had asked John James if he would facilitate the meeting. I had discussed the matter of facilitation at some length with Frank Vanclay, and that we both agreed that John James was an appropriate person. This was for several reasons. Firstly, as the President of APEN, it was a great opportunity to draw connections between the
professional network and these executive leaders. Secondly, with John’s background as an educator with CRRIQ (previously REC) and renown as an extraordinary facilitator, he was an ideal choice to facilitate proceedings. Also John was familiar with separation of facilitator and participant functions, thus enabling his effective contribution in both roles. I had discussed with John on a few occasions what my ideas were for negotiations within the group and when we spoke of the processes to be used I was confident they were in alignment with network building and a triple-loop-negotiation approach. Inclusion of de Bono tools for enabling creativity was particularly important. John’s facilitation of this event was, I believe, a fundamental element of its success. Following is a brief synopsis of SELN’s first meeting.

After welcoming participants, John (as facilitator) invited each participant to introduce themselves and to draw pictures of how we saw ourselves, and how we thought others probably saw us. We then developed a list of behaviours that would help our two days together to be as effective (and creative) as possible. Then I presented a timeline of significant events/contacts leading to the need to convene this National Extension Leaders workshop:

<table>
<thead>
<tr>
<th>Year</th>
<th>Event Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>2001</td>
<td>Jeff Coutts, Jock Douglas and Andrew Campbell’s presentation at the APEN conference calling for a National Extension Framework for Australia</td>
</tr>
<tr>
<td>2002</td>
<td>APEN resolved to take action in influencing national extension policy discussions</td>
</tr>
<tr>
<td>2003</td>
<td>Small APEN Extension Policy workshop in Sydney. Outcomes: draft documents and recommendation that discussion be progressed at a national scale</td>
</tr>
<tr>
<td>2004</td>
<td>Working group of nine volunteers committed effort to planning and conducting the National Extension Policy Forum Sydney (Coogee 20-21 July). Outcomes: (i) draft National Extension Framework and mandate to progress it, (ii) project application to Cooperative Venture for Capacity Building to implement the framework, and (iii) contact with Janice Jiggins, Niels Röling, Cees Leeuws, Anne van den Ban and other extension academics who see the Leaders Group as pivotal to improving extension coherency and correspondence in Australia</td>
</tr>
<tr>
<td>2005</td>
<td>Contact with key stakeholders in extension: Gus Hamilton, Prof Frank Vanclay, Jess Jennings, John James to negotiate legitimacy and progress planning; Jeff Coutts (National Evaluation of Extension 4000+ extension staff BUT with problematic coordination); Beth Woods (Qld link with PISC) who says extension leaders discussions are essential and require legitimacy, linkage with influencers such as PISC/NRMSC, and; a range of senior agency stakeholders (e.g. Ike Johnson Director General WA Ag, Carie Dellen and Tom Dreschler Managers in DNR&amp;M Qld, Malcolm Letts General Manager Qld DPI&amp;F) who seek better achievement of outcomes rather than 'saving extension'.</td>
</tr>
</tbody>
</table>

Figure 10.1: A timeline of events that triggered the State Extension Leaders meeting
As a means for identifying the enthusiasms within the group, diagrams were prepared by three sub-groups depicting what the future might look like if this meeting was highly successful (see Figure 10.2). Representatives them presented back to the larger group and explained their diagram.

The group then collectively discussed these 10 year projections and felt they could contribute to extension’s future in Australia by considering issues and opportunities for:

- A National Extension Framework for Australia
- Approaches to demonstrate the value extension provides
- The future extension system
- The role of a state extension leaders network

Following this, John invited the larger group to use de Bono’s 6 Hats to think creatively and laterally about these proposed futures (see below). From this point, it was straightforward for the group to identify a business strategy for the ensuing two years. While the group called it a business strategy I understood this exercise better as the development of action plans. Firstly, discussion centred on determining a name. John suggested: “Hey, the identification of the group’s vision and mission would inform this.” While agreement on the name ‘State Extension Leaders Network’ or ‘SELN’ in the acronym form was provisional on the first day, this was ratified the following morning. As he penned this on the whiteboard, John then facilitated interactions and recorded suggestions as they arose. The agreed vision that resulted from discussion was that: “Extension contributes value to achieving desired Government outcomes”. With this firmly centring SELN’s position within the wider system as purveyor of outcomes for Government, the agreed mission was: “Provision of leadership and strategic direction in the development of State and National extension service delivery”. It seemed that the division between State and Federal was intentionally blurred.

Further to this, SELN members identified that its purposes included: creating excellence in extension service delivery leading to desired outcomes; facilitating cooperation/exchanges between states; advancing staff development of senior extension staff; developing joint projects; discussing high-level strategic issues (including benefit/cost evaluation and identifying where extension fits with other policy instruments); sharing knowledge (developing a community of practice); influencing the ‘movers and shakers’ outside this group; enhancing/encouraging combined/collective effort, and; identifying and developing appropriate strategic alliances.

It was remarkable how quickly SELN’s purposes emerged. “So other people also share similar views – maybe I’m not crazy after all”, I said quietly to Geoff Warr beside me. As workshop conversations continued, SELN increasingly moved into the third loop of negotiation. Even though the points of conflict within this homogeneous group were limited, SELN members agreed that they needed to prepare for negotiation with external parties to resolve issues with the dichotomy (or mix) of public and private service providers and the poor identification of effective roles, responsibilities and resources within service delivery arrangements. I was comfortable at this point that the group had started to set the pretext of negotiating the negotiation approach and process by setting the boundaries around SELN and identifying the strategic needs within the group. This would then provide the group with practice in considering the groups’ position in preparation for reflexively designing negotiations with other stakeholder groups in the outside world.

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125 Following de Bono as introduced in Chapter 8
<table>
<thead>
<tr>
<th>Group Diagram</th>
<th>Explanation</th>
</tr>
</thead>
<tbody>
<tr>
<td><img src="image1.png" alt="Diagram 1" /></td>
<td>The extension system is one constellation among others involved in change processes in rural and regional Australia. The constellation analogy is intentional with the Extension Constellation’s visibility a function of the relationship(s) among the component stars. Also the Australian extension constellation is part of international extension systems and that its past is relevant to its future.</td>
</tr>
</tbody>
</table>
| ![Diagram 2](image2.png) | Extension is serving the national interest through a network of diverse stakeholders targeting NRM, production and community needs. The extension system will best serve the national interest through linking stakeholders/silos, establishing competencies and effective leadership. The State Leaders Group is seen as a ‘knowing-doing’ hub within the extension system for targeting several levels of strategic need:
1. State’s own self interests
2. State’s individually benefiting from supporting each other
The optimal investment in extension is seen as trending upward to meet increasing needs. |
| ![Diagram 3](image3.png) | The extension system can be viewed as an electrical circuit contributing energy toward sustainability outcomes for diverse rural and regional players. Extension is the current providing value to these multiple stakeholders (communities, industry, Government, R&D, etc) through improved understanding and practice leading to healthier landscapes, livelihoods and lifestyles. To increase extension’s value however, the existing contested and problematic dichotomy (or mix) of public and private service providers requires capacity building and negotiation to identify effective roles, responsibilities and resources along a comfortable service delivery continuum. |

Figure 10.2: Diagrams illustrating what extension in the future might look like if the April 2005 State extension leaders meeting was highly successful
<table>
<thead>
<tr>
<th>White Hat</th>
<th>Yellow Hat</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Information</strong>&lt;br&gt;<strong>Data</strong></td>
<td><strong>Logical-positive</strong>&lt;br&gt;<strong>Values and benefits rather than danger or negativity</strong></td>
</tr>
<tr>
<td>Generally information on extension is dealing with unknowns</td>
<td>7 States and Territories working together</td>
</tr>
<tr>
<td>Government Extension Statistics</td>
<td>Triple-bottom-line outcomes – Landscapes, Lifestyles and Livelihoods</td>
</tr>
<tr>
<td>1. QDPI – 308</td>
<td>Collective extension projects across State borders will align with funding body needs</td>
</tr>
<tr>
<td>2. NSW – 350</td>
<td>Recognition and support provides more effective outcomes</td>
</tr>
<tr>
<td>3. WA – 180 (was 260 until recently)</td>
<td>Improved benefit/cost ratio</td>
</tr>
<tr>
<td>4. SA – 200 (building to 250 – 300 in near future)</td>
<td>Value in agreeing on and describing extension features–benefits–products</td>
</tr>
<tr>
<td>5. TAS – 50</td>
<td>Best serving National Interest</td>
</tr>
<tr>
<td>6. NT – 20</td>
<td>Use fact that State Governments are all Labor as a positive influencer</td>
</tr>
<tr>
<td>7. VIC – 300+</td>
<td></td>
</tr>
</tbody>
</table>

NRM groups are generally not included in these statistics. Therefore Jeff Coutts et al (2004) total of 4000+ is not highly visible.

<table>
<thead>
<tr>
<th>Black Hat</th>
<th>Green Hat</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Careful &amp; cautious</strong>&lt;br&gt;<strong>Critical thinking</strong></td>
<td><strong>Creativity</strong>&lt;br&gt;<strong>Energy</strong></td>
</tr>
<tr>
<td>Tension between Federal and State politics may paralyse progress</td>
<td>Piggy back on major events relevant to rural and regional Australia</td>
</tr>
<tr>
<td>National Interest may be hijacked by power struggles</td>
<td>Extension visibly demonstrate its support mechanism role</td>
</tr>
<tr>
<td>State Governments may not see benefits of a National approach</td>
<td>Build off support shown by CEOs’ agreement for attendance at the Extension Leaders workshop</td>
</tr>
<tr>
<td>Political timeframes (3 yrs) versus extension’s strategic longer-term needs</td>
<td>Become a constellation – The relationship between stars combined with their visibility gives meaning and identity to the constellation e.g. Southern Cross</td>
</tr>
<tr>
<td>No actionable first-step</td>
<td>State Extension Leaders Group add legitimacy to a National Extension Framework for Australia (NEFA)</td>
</tr>
<tr>
<td>Challenging to engage AFFA, PISC, NRMSC, etc. interests</td>
<td>Influence and change awareness and understanding of our masters – Senior agency management/executive</td>
</tr>
<tr>
<td>Common purpose not shared and understood (e.g. one member tried a variety of ways to describe economic, social and environmental benefits using value cube, etc. however his manager(s) did not identify with/respond to this)</td>
<td>Look to other innovative examples e.g. Australian Museums and Rural Women</td>
</tr>
</tbody>
</table>

Figure 10.3: Using de Bono’s 6 Hats to think laterally on SELN’s proposed futures
### Red Hat

*Emotions*
*Feelings*
*Intuition*

- NSW – excitement at potential to share learnings and find out situations across State borders
- QLD – excited and enthusiastic but challenged. Relieved the group has met however see some frustration regarding the Ag – NRM divide.
- NT – Excited but wary of following successes of other States rather than missed opportunities – Nervous but keen about a national conversation
- SA – Excited but keen to identify how a national group can add value. Have tried many ways to describe extension to managers but need better support for this
- WA – Challenged but reserved – It is critical that the group retains strong continuity and does not change much
- TAS – Excited about the group’s potential for leading extension’s role in the environmental, social and moral imperatives of change
- VIC – missed the session
- APEN – Keen and encouraged by APEN’s chance to support extension policy discussions. The Leaders Group can lead to significant steps forward and reduce the current risk of treading water

### Blue Hat

*Organising*
*Focusing*
*Process Management*

- Note: Given the enthusiasm shown with the red hat, the blue hat was considered further in the development of a business strategy for the State Extension Leaders to realise these 10 year projections (see below)

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**Figure 10.4: Using de Bono’s 6 Hats to think laterally on SELN’s porposed futures**

The following group features were agreed: 1. a formal structure (with agency endorsement of membership); 2. continuity of membership; 3. membership for Government extension leaders/influencers – with an open door policy (to include the APEN President and other significant individuals as appropriate); 4. formal terms of reference; 5. a well-defined statement of purpose(s); 5. membership from agricultural production and NRM domains (with my ongoing involvement in SELN based around my representation of NRM interests); 6. SELN to operate as independent entity hosted on a rotational basis across Australian states and territories; 7. secretariat role to rotate with meetings (although this decision has been subsequently revised); 8. intention that the group is to meet three times per annum, and; 9. encourage explicit recognition of the strategic needs of group members (e.g. state and individual) against the higher order collective needs (e.g. national interest).

SELN members then proposed the following group operating practices: Other points of view are different, not wrong!; Difference is valuable and to be valued; Speaking out without fear
or favour is welcomed; Members need to ‘Think Future’; Outcomes need to be tangible; Activities need to be a chewable mouthful, not too much resulting in choking!; Accept that some things will not get covered/done; Ensure there is shared purpose; Think big!; Be positive; Look for common ground, not least common denominator!; Work off enthusiasm; Getting to know others – strategic linkages. I found these suggested operating features to be particularly relevant to the third loop of negotiation, establishing some clear principles for how SELN members might negotiate within the group and externally.

John then focused discussion on the key issues that SELN needed to address. “So, what are the Hot Topics for SELN in the next two years?” he asked. With barely a break in discussions, the topics to be addressed were recorded: Marketing the value of the extension/change process; establishing a national extension system (NEFA); Managing the political game through interactions with PISC and NRMSC; influencing the RD&E mix; investigating models of extension organisations across Australia; deciding how we are going to lead; discussing staff development (skills-qualifications-extension staff capacity); identifying possible joint projects; developing a process to share/learn together; influencing resolution of the NRM/Ag interface tension; identifying how to profile past success stories, and; linkages with significant events/processes. “Wow, it looks like there is lots to do!” John exclaimed.

“Why don’t we discuss SELN’s role with the National Extension Framework for Australia?” suggested Jess Jennings. He gave an update on where the ESWG had progressed to with NEFA and suggested that the table of contents already exists (showing the draft Extension Framework Components in Figure 9.9 above). SELN members began to query the need for having a NEFA and the efforts required. One person asked: “But really, will it make a difference? Sure it is important, and the actions for SELN, responsibilities, roles will hopefully lead this way.” “Let’s not get bogged down here,” Frank rallied, “maybe we are not clear about the general position of extension in Australia. From my understanding, the problem is that extension is undervalued and misunderstood – SELN’s proposition might be that extension can contribute value AND that we need to create a new legitimacy for extension, and following from that, SELN needs to identify the tasks to achieve this.”

After an unsteady pause in discussions, I continued by adding: “For some time now, we have been fielding a dialogue through APEN and then the forum about the role of extension as a policy instrument – Maybe we can progress negotiations within the extension system and with stakeholders from other policy areas (see Appendix 1) around the value of the extension policy instrument.” I thought at this time that, based on my earlier research with compliance people, I expected that core value conflicts and core uncertainties from these other policy instrument stakeholders would result in wicked problems requiring considered negotiation approaches to resolve conflictual issues. This gathered some support and John continued to facilitate, securing agreement that SELN progress three key areas of inquiry:

1. Identifying extension as a policy instrument – extension’s role and interdependencies with other instruments
2. Showcasing extension’s role in effectively achieving outcomes (an example from each State/Territory demonstrating cause and effect) – Cases can show achievements and/or potential achievements
3. Progress strategies for engaging public and private sector stakeholders in extension – Including shifting paradigms from public to private and joint extension projects with larger funding bodies, e.g. NAP and NHT.

From these three, the SELN decision was to pursue the first two options and a pair of documents was proposed as deliverables that fulfilled the needs identified.

The first document, with an indicative length of around four pages, was to describe extension as a policy instrument by: outlining the range of policy instruments; asking why extension is
important; querying the contribution of extension; investigating how extension relates (interactions and interdependencies) to other instruments, and; drawing conclusions on what we need to do to gain most value and what we need to do for appropriate application using specific state cases. Interestingly, SELN members were somewhat divided on the use of the ‘extension’ word and after considerable discussion agreed on using it but linking it strongly with ‘facilitating change’. The following actions were agreed for the first document:

1. Action: Authored by Fiona Johnson, Frank Vanclay and Greg Leach in consultation with SELN.
2. Action: John to contact Dick Fell regarding supplementary document to summarise development of extension over time.

The second document was suggested as a sister to the first and was to showcase extension achieving value & outcomes (indicative length of 12 pages), using a range of case studies with at least one from every State/Territory. With direct reference to the first document, extension was to be highlighted in each case study: as one of range of policy instruments; contextualised in terms of challenges, outcomes, change and issues at different scales (big, medium and smaller picture); as a particular set of principles, and; with future opportunities for application. The following actions were agreed for the second document:

1. Action: Authored by Geoff Warr in consultation with SELN.
2. Action: State Leaders develop 1-2 case studies each.

As the meeting drew toward a close and John moved participants into evaluating the workshop, one participant said: “This is really good and has potential to do something – but from my experience, such groups need to be firm about stable membership and participation in group activities. We need to agree on our membership now.” The group rallied and the following membership was agreed upon 126:

<table>
<thead>
<tr>
<th>Member</th>
<th>State or Function</th>
</tr>
</thead>
<tbody>
<tr>
<td>Peter Metcalfe</td>
<td>Western Australia</td>
</tr>
<tr>
<td>Ellen Howard</td>
<td>New South Wales</td>
</tr>
<tr>
<td>Geoff Warr</td>
<td></td>
</tr>
<tr>
<td>Locky McLaren</td>
<td>South Australia</td>
</tr>
<tr>
<td>Greg Owens</td>
<td>Northern Territory</td>
</tr>
<tr>
<td>Warren Straw</td>
<td>Victoria</td>
</tr>
<tr>
<td>Carolyn Cameron</td>
<td></td>
</tr>
<tr>
<td>John James</td>
<td>Queensland</td>
</tr>
<tr>
<td>Gus Hamilton</td>
<td></td>
</tr>
<tr>
<td>Greg Leach</td>
<td></td>
</tr>
<tr>
<td>Frank Vanclay (as Academic rep)</td>
<td>Tasmania</td>
</tr>
<tr>
<td>Robin Thompson (joined later)</td>
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</tbody>
</table>

Figure 10.5: Initial SELN members (2005)

In the evaluation discussion as the meeting drew to a conclusion, I briefly attempted to introduce triple-loop-negotiation thinking, feeling myself that the progress over the two days had certainly moved toward operationalising the core elements of the model. I felt that it was an ideal time to bring the model into conversations, as means to aiding collective consideration and evaluation of a triple-loop-negotiation approach. As it came to my turn to reflect on the past two days, I said: “Well, everyone here is now more familiar that my involvement in this group has a dual role, as an advocate for non-existent extension policy

126 This membership list was not formally drawn up at the meeting but was articulated verbally. There have been only minor adjustment in membership since this first meeting.
for NRM within my agency and also as applied research into what are effective approaches and tools for negotiating and institutionalising extension policy for NRM. As part of this research, I have been developing a model for extension practitioners and policy staff to think about and negotiate extension policy processes.” I then asked people to imagine a triangle placing key words against its three corners. “It looks to me like discussions have very much centred on the core components of a model for negotiating improved extension policy. On one corner of the triangle is enthusiasm – there has been an enormous demonstration of the motivations that everyone here has for improvements in the extension system. On another corner there is creativity – it is very evident that this enthusiasm is driving us forward to create something new that has never existed in Australia before, and this will help create the institutional space needed for influencing extension policy. And on the third corner there is participation – we all seem to rally together well and implicitly understand that we need to participate well amongst ourselves and with other stakeholders to make things happen. At the centre of all this, it seems that SELN is taking a social learning course to interacting with different perspectives and it also seems that we are aiming to reframe interpretations of extension generally.” It was interesting to note that the introduction to triple-loop-negotiation, using terms and concepts that are not common negotiation language, was my attempt to ease SELN members into thinking comfortably about negotiation.

Then I paused and looked around noting the agreement and approval on SELN members’ faces. I could see that this struck a chord and confirmed this by asking, “So, do you think that this represents the approach that we are taking?” The accord was strong, so I included some reflections on earlier contact I had made when in the Netherlands in the preceding Christmas. “When I met up with Niels Röling and Janice Jiggins in Wageningen recently, they also had some thoughts about the role of nested groups such as this for influencing improved extension policy. Niels thinks that there are three prevailing narratives that influence change which are economics, law and X. He and Janice see that the social project is the X factor and Extension is a part of that. We discussed extension policy at length and agreed that for extension practitioners to find the best way to influence change, it needs to work with people and systems involved with these bigger narratives. Basically, what we, in groups such as SELN, need to do is ask these narratives what they want from us to help achieve change.”

While not as enthusiastic as the initial responses, SELN members supported this thinking. I couldn’t help reflect though that I may have played my hand too early and pushed my negotiation agenda when the group was just establishing. This was confirmed by one person who said: “Yes, this type of thinking may be useful, but I guess we need to be sure about SELN’s boundaries and the fact that we are seeking improvements for State government – We need to think about our mandate and what our role is.” Despite this levelling statement, as I stepped on the plane back from Melbourne to Brisbane, I couldn’t help reflecting on the incredible potential that SELN had in influencing extension policy for sustainable production and for NRM.

10.1.4 SELN Progress: Meetings 2 to 5
Following the initial SELN meeting, as at late 2009, the group has met on over 14 occasions, at least once in every state or territory. Following is a brief account of outcomes from these meetings that are significant to the negotiation of extension policy in Australia and for NRM. Between the first and second meetings it became apparent that Fiona Johnson was not available so Frank and I therefore took a lead role. Between the first and fourth meetings Frank and I had numerous exchanges in developing the discussion document. I began the process with a starting draft and Frank spent a lot of time developing it further.

SELN Meeting 2, 3-4 August 2005, Sydney
At the second SELN meeting, Geoff Warr took a very different facilitation approach to John James, running it more like a formal committee meeting than the dynamic workshop John
James had facilitated. SELN reviewed and signed off on the vision, mission and purposes of the group. Since the first meeting, Frank Vanclay and I had met physically and had numerous email interactions in the drafting of the SELN discussion document about extension as a policy instrument. SELN reviewed this document in light of its purposes. One participant said: “Maybe the paper is too much NRM-centric at the moment.” Another agreed adding: “This document needs to be a platform for interacting with PISC and the NRMSC as well as with our own State and Territory Governments.” In the discussion that followed, SELN members established that the key messages required in the document included: extension is one of numerous policy instruments; extension targets voluntary change for both public and private good; extension is now using more dispersed service delivery systems than before (e.g. 7 models) and is a support for other capacity building efforts; extension is a policy instrument in its own right and a support for other policy instruments, and; there is a need for better coordination and organisation of the extension system to gain most value from this instrument (requiring a NEFA and maybe a national policy summit). Then someone suggested: “Hey, what we really need within this document is a common definition for extension. I know that in April we were unsure whether to focus on the word or not, but it seems like we are, so we better get to and define it.” I jumped up and took a pen to the whiteboard and began to record the definitions that SELN members suggested and then began to merge these into a single statement that we could all live with. This did not take long to do and when I read out the finished definition, there were nods all around the table – “Extension is the process of facilitating change in individuals, communities and industries in relation to primary industries and natural resources.” Frank thanked the group for their input saying: “Ok, Greg and I will now get back to the document and incorporate your suggestions.” Further outcomes of significance from this meeting related to NEFA and SELN’s interactions with this. Someone attempted to cover off on it saying: “The ball is already rolling – the big tension for SELN is that it only represents 20 to 25 percent of the extension effort in Australia. APEN is the owner of NEFA and it needs to drive it. SELN can support the process, but there is some risk with developing frameworks that formalise things that shift anyway.” Another person added to this suggesting, “The NEFA will be achieved anyway, and in some ways it is beyond SELN.” A positive upshot from the meeting was a range of idea on how SELN might engage with the Research and Development Corporations (RDCs) to influence extension policy.

**SELN Meeting 3, 28-29 November 2005, Brisbane**

Gus Hamilton hosted the third SELN meeting in Brisbane, within the DPI&F buildings on the Natural Resource Sciences precinct where I worked. Significant outcomes from this meeting related to the way in which SELN could influence negotiations about extension policy. On the first day, after considerable scoping discussion, I presented a summary of the Land and Water Australia project application that I had been preparing in negotiation with a number of other SELN members since the August meeting. The purpose of the proposed project was to: develop knowledge systems that inform and advance extension approaches and policy amongst institutional networks that deliver services to facilitate changed natural resource management practices through (i) identification of the role of extension as an effective policy instrument; (ii) developing knowledge on extension’s integrator, facilitator and process management support function for other policy instruments; (iii) developing knowledge on extension’s changing role in building a bridge between research, adoption and policy, and; (iv) improved understanding of the return on investment from extension. After discussing the research approach and methods and the four case study areas that had been negotiated in Victoria, Western Australia, Queensland and the Northern Territory, I attempted to initiate an open discussion about what role SELN might play with this project.
So what does this project mean for SELN?

When I presented my view of the complexity of the wider extension and capacity building system in Australia in a systems network diagram (Figure 10.6), one participant exclaimed: “Urggh. I don’t like your map of the system, Greg. Sure, all those stakeholder organisations exist but the relationships are complex and diffuse. We can’t tackle all that. Surely we have to bring it back to something manageable. And something that relates directly to our core business.” Everyone present was in agreement and decided that the Research and Development Corporations (RDCs), as had been suggested at the last meeting, were a good target group with a direct role in the RD&E relationship. So on the next day, Peter Metcalfe facilitated a session exploring the idea of an RDCs meeting or forum convened by SELN. Neale Price was a new arrival to SELN on this day as a representative for APEN as its new president\textsuperscript{127} and provided useful insights into the political and institutional landscape in Canberra. With Peter’s guidance, SELN members developed a plan of engagement with RDCs in a proposed workshop with Communication Managers in February or March 2006. This was to feed into a larger RDC workshop perhaps in September 2006. In summarising this session, Peter said: “The end point that we are after is agreement between RDCs and State Agencies on the steps forward to achieve greater industry impact/outcome from R&D investments over the next 12 months. The objectives we in SELN and the RDCs are both chasing are firstly designing projects for greater impact, secondly to achieve a common understanding of extension and thirdly to arrive at a national strategy to develop and support project development/design.”

Following this, SELN members took some time to consider the discussion document Frank and I had worked on since Meeting 2. A range of suggestions were made. There was agreement that with a minor re-edit, the document was ready to be presented to Director Generals in respective State and Territory agencies for collective sign-off on this national

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\textsuperscript{127} John James passed the President role of APEN over to Price following the 2005 AGM. John continued to be involved in SELN due to his history with APEN, REC, CRRIQ and extension in DPI&F.
statement on extension. While not discussed at length, it seemed that SELN members implicitly knew that sign-off by high-level extension stakeholder organisations was a valuable step in ensuring the collective position of SELN, an informal network, was recognised in the formal world. Most SELN members anticipated that this should not be difficult as no funding support was being requested, and agreed that this would be best achieved before the end of the year (2005). Frank Vanclay and I then suggested that if the RDCs were to sign off on the document, it would greatly aid SELN’s purposes. While some members were dubious, it was agreed that a move to sign-off on the document would be included in the workshop. I collated the notes from this session and emailed it to members as SELN’s draft negotiation plan for working with the RDCs. As we headed toward Christmas in 2005, there was a high degree of optimism that SELN was going to be highly productive in 2006.

**SELN and RDCs Meeting, 3 March 2006, Sydney**

On the 3rd of March 2006, SELN convened a meeting with the Communication Managers from 11 of the 15 RDCs. The meeting was opened by Peter Metcalfe as the representative from SELN who had done the majority of preparation for the meeting, including inviting high-level political input. Peter set the scene and outlined the SELN objectives and intended outcomes from the workshop.

The first presenter was Kevin Goss, the chair of the CVCB. In his role as chair of a group of RDCs, Kevin was the obvious choice for setting the stage for interactions between the RDCs and SELN. Kevin’s presentation was very supportive with a series of implications from CVCB research findings that spelled out the need for improved policy and ongoing development in the capacity building sector generally. However, somewhat at odds with his PowerPoint presentation, when he verbalised his thoughts on the meeting and the interface of SELN and the RDCs, Kevin seemed less compelling. Kevin focussed on the discussion paper as the centrepoint for SELN saying: “We need to embrace diversity and look for new ways as the continuum between research, extensions and education becomes more integrated. I am quite uncomfortable with the paper because it is advocating from a defensive position. The tone of the message is restrictive and it might be better to think of a broader mix of where changes can occur. One thing that SELN might consider is the net-present-value of extension and what this instrument by itself and in combination with other tools is achieving.”

A further point Kevin raised was that: “Trust and relationships are essential for supporting change and what seems to be missing in the extension document is the fact that there are multiple pathways to this, and the end of the journey is quite unclear.” Kevin’s presentation illuminated for me some of the opposition that SELN would have to work with in future.

Peter had invited the newly appointed Parliamentary Secretary for Primary Industries, the Honourable Sussan Ley, to speak at the gathering. Her speech was very encouraging and she fully supported the meeting’s agenda of interfacing State extension policy with that of the federally and industry supported RDCs. I raised my eyebrows when she said: “One the big issues and opportunities that we are faced with is bridging the artificial divide between production agriculture and sustainable NRM. We need robust programs that bring these two areas together rather than leaving them as separate and somewhat competing groups. Extension has a role in providing a link between on-ground change and policy.” “Wow!” I thought: “this is a great way to set up this meeting.” I wondered if many or any of the other participants had picked up on this.

Despite Sussan Ley’s positive input, however, Kevin’s disposition toward the document was corroborated in the next workshop session as one-by-one participants provided their views on the propositions SELN was making and the position of the respective RDCs on signing off the document in its present format. Generally, participants indicated that while the intent of the document could be supported, the defensive nature, tone, lack of examples demonstrating impact and lack of clarity about the value in supporting such a document were some of the reasons why sign-off was too pre-emptive. As one representative suggested:
"The idea of signing off on a common document is great and my RDC would be keen to attach its logo to the front page along with a swag of other stakeholder agencies to add clout, but this document is not it. It seems that different initiatives are trying to claim the same space but with different terms."

Notwithstanding the differing levels of enthusiasm for SELN’s engagement with the RDCs, the workshop concluded on a positive note. As manager of the CVCB, John McKenzie bought things together again highlighting the confusion and uncertainty about capacity building, with jargon, complicated theory and the limitations of short-term projects leading to poor coherency and continuity. He summed it up when he said: "The big issue is how to develop projects – RD&E design is challenging with extension being an add-on."

John James and Neale Price then facilitated a small-group session looking at ‘What are the future needs of RDCs and State Agencies for greater industry impact?’ The outputs from this led to an Action Planning group process nicknamed the ‘Gus Special’ (after Gus Hamilton) for those involved to come up with an action/project plan or next steps. This process worked well resulting in the following two projects:

As the workshop drew to a close, the enthusiasm around the room was high and the evaluation process that encouraged each person to verbalise their sentiments amplified this. It was clear that the majority were elated that two concrete projects had emerged from a potentially contested space. One participant summed up the thoughts of many when he said: "The networking and action plans that have come from this are very positive. We need to put considerable effort into building the links and dealing with the constraints that will stand in the way of achieving these plans. It has been great to explore some of the differences between SELN, CVCB and the RDCs. Clearly we have a common interest!" Another added, “It seems that getting the right people engaged is critical. People with power and capacity to draw others in and chase the cause along. The chance to have robust discussions like this is great and we need more of it because the risk here is that, while we have established that we have more of a shared position that I originally thought, we have crammed a lot into a short time and have a risk of losing the good stuff!"

On the way home to Brisbane, I was ecstatic that SELN had come so far in less than twelve months and was now in the throes of negotiating extension policy with another significant nested system within wider extension and capacity building networks. I was sure that the SELN meeting the following week would be an ideal place to re-engage the group in discussions about a negotiation plan.

Between the third and fourth SELN meeting there was a lot of work in obtaining CEO signoff. Letters were written to all CEOs of DPIs to formalise the nominations of appointments and affirm in-principle endorsement of SELNs national statement on extension. The document was finalised with all State and Territory Governments signing off between the fourth and fifth meetings.
In March 2006, SELN met for two days following the APEN International Conference which was held in Beechworth, Victoria. It had been an extremely full few days for most SELN members and energy levels were beginning to wane. I had been up late the night before trying to prepare a presentation about how I perceived SELN needed to move toward collaborative space as defined by Lewicki et al. (2001) and use triple-loop negotiation thinking to plan steps forward for working with the RDCs and other systems nested within the wider Australian extension system. I secured a time on the agenda to discuss a “negotiation plan”, but was quite nervous that my 26 slide PowerPoint presentation may be a deterrent.

**Figure 10.7: Projects developed in SELN – RDC meeting in March 2006**

**SELN Meeting 4, 8-9 March 2006, Beechworth, Victoria**

In March 2006, SELN met for two days following the APEN International Conference which was held in Beechworth, Victoria. It had been an extremely full few days for most SELN members and energy levels were beginning to wane. I had been up late the night before trying to prepare a presentation about how I perceived SELN needed to move toward collaborative space as defined by Lewicki et al. (2001) and use triple-loop-negotiation thinking to plan steps forward for working with the RDCs and other systems nested within the wider Australian extension system. I secured a time on the agenda to discuss a “negotiation plan”, but was quite nervous that my 26 slide PowerPoint presentation may be a deterrent.
rather than a facilitator of interest in negotiating how we negotiate. When asked what my agenda item was about as we planned the meeting agenda and timings, I said: “Well, I am not sure when it is best to focus on this, but following on from last week and the APEN teleconference, I think that SELN has to think critically about how it advances an inclusive ‘we’ message that is endeavouring to influence through collaborative rather than adversarial means. I think we need a negotiation plan.” The lack of interest was obvious and Frank articulated this when he said: “What about we come back to that as we move through some other issues – maybe the need will emerge.” I was sceptical of this and my nervousness escalated as the meeting progressed and early discussion centred immediately on the Sydney meeting in the week prior.

Carolyn was adamant that the relationship between capacity building and extension was important for SELN’s position and said, “The lack of clarity on this does not help our policy agenda.” One person cut in here saying: “My DG would have a heart attack if SELN was to put up the position that we were promoting capacity building – and I know that it is the same in at least some other states.” The hastily recorded resolution from the group was that: “SELN recognises the contributions of the Cooperative Venture for Capacity Building. SELN considers Capacity Building as a subset of Extension and sees no reason for CVCB to be part of SELN”. It seemed that everyone felt that the CVCB should be left out in order to first empower the extension movement, and create mutual feelings of interdependence. I found it interesting that while SELN members were not openly aiming to negotiate, and seemed indifferent toward the development of a negotiation plan, there was a collective need to resolve the policy position contest between extension and capacity building and ensure commensurate funding allocations were secured for extension. However within a very short space of time, it appeared to me that SELN had abandoned (at least in the short term) the need to think critically about its role and approach in ongoing negotiations about the extension-capacity building space with the CVCB and RDCs.

Even though I waited until the latter part of the first day to begin talking about developing a negotiation plan, I had the sense that this was not the time. SELN members generally agreed that both projects with the RDCs could be framed as negotiation plans, however, they were reluctant to use this type of language and felt that negotiation was more an emergent reality of the interactions that were planned, rather than a proactively-considered, deliberative activity. I reflected at the time that SELN members seemed much more intent on reflection-in-action rather than reflection-on-action (see chapter 4). As I retired that night, I reflected that perhaps my ambition to secure interest from SELN in conducting a significant amount of time to negotiating how we negotiate was somewhat misguided and that a more iterative reflection-in-action approach was needed.

The next day, the balance between reflection-in-action and reflection-on-action actually became important in a discussion about the needs and roles of a suggested SELN executive officer to help coordinate affairs. One member said that: “SELN needs to take stock of the fact that State Governments are the biggest investor in extension in Australia. We are talking significant dollars here and the way that we should be approaching SELN’s agenda is not about fighting to save extension, but more about suggesting a new way of doing business and identifying the value proposition of investing in the extension policy instrument!” Another member then stepped in referencing this to the negotiation discussion I had raised the afternoon before. He said: “This has actually been a strong discussion about the negotiation agenda of SELN – or The Problem!” He continued: “Frank and Greg have been coming from the save extension angle and Greg [Owen] and Peter [Metcalfe] are coming from the new way of doing business using extension along with other instruments to achieve outcomes angle. Frank and I almost simultaneously responded. I said: “Well I am regretful that this is the impression that you have got from how I communicate and the work I have done with Frank on the discussion document.” Frank then added: “It is a bit hard to separate the two
agendas, because I am keen on both and see them inextricably linked. This is important for how we communicate, especially in the document Greg and I have been working on!”

A further part of the triple-loop-negotiation puzzle became clear as the meeting moved to conclusion in discussion about the SELN-RDC linkages with the two projects. It was resolved that SELN does have authority and backing within respective agencies for progressing projects with the RDCs and that it needed to do so in collaboration with them. However it was considered best to advance this in a separate project team so as not to jeopardise SELN and to use the Honourable Sussan Ley’s influence through the RDC Chair-of-Chairs by writing a letter to Terry Enright. Greg Owens summed up SELN members’ agreement when he said that: “The power and impact of a letter from Susan will be much more effective for RDC engagement than a plea from SELN.” Using the more familiar term of Communication Strategy, the plans and resolutions from the meeting were then packaged onto butcher’s paper. As I left Beechworth, I was content that SELN was in fact negotiating how it negotiates within the group as well as with others, even though members were more comfortable using less conflict laden terms. I was also comfortable that a negotiation approach was appropriate because, while interactions were amicable and conflict was not openly discussed, there were numerous strong undercurrents of doubt emerging from RDC members as to SELN’s real agenda, and concern that State governments, the primary deliverers of resources for ‘extension of research outcomes’, were trying to consolidate and reduce funding. Likewise, SELN members were concerned about RDC agendas. Ultimately, everyone was competing for Federal and State Government funds to prosper.

SELN Meeting 5, 17-19 July 2006, Douglas-Daly Research Station, Northern Territory

In July 2006, SELN met at the Douglas Daly Research Station in the Northern Territory for three days. As I got onto the bus at the Darwin airport, I said to Greg Owens: “Hey this is great. This is the first time that the group has moved outside the meeting format that most members are familiar with inside sterile rooms in capital cities. It’s an excellent idea to get us out away from the city and see some of ‘The Territory’.” As we motored the 250+ kilometres from Darwin to Daley River, Greg Owens told about the land-use of areas we passed through, the state-of-play with the different industries, and the strategic importance of WWII as embellished by the many military installations and old landing fields dotted along the highway. This, along with the involvement of Tracey Black, a pastoral extension officer, throughout the three days was an excellent introduction to the context and roles of extension in the Northern Territory.

At the beginning of the SELN meeting, I suggested that: “A review of the past twelve months would be a useful foundation for the meeting. This idea had been fleshed out between Frank and myself when we met in Brisbane between SELN meetings to finalise the discussion paper.” In our Brisbane meeting, I had conveyed to Frank my ongoing tension in trying to operationalise the triple-loop-negotiation model with SELN. Frank challenged me that we might do this effectively by continuing the trend set in Beechworth and reviewing SELN’s achievements since its beginnings and the group’s communication strategy. This was the major achievement of the SELN meeting in the Northern Territory and is captured below.

<table>
<thead>
<tr>
<th>Stakeholders</th>
<th>Alliances</th>
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<tbody>
<tr>
<td>SELN agencies</td>
<td>NFF</td>
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<tr>
<td>RDCs</td>
<td>APEN</td>
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<tr>
<td>CVCB</td>
<td>Aust farm Institute</td>
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<td>CMA\s</td>
<td>Landcare Council</td>
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<td>DEH</td>
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<tr>
<td>CERFs</td>
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</table>
How do they interact with SELN?

**Vision:** Extension is recognised as a key to achieving government outcomes through the leadership of SELN.

**Mission:** Provision of leadership and strategic direction in state and national extension services.

**Purpose(s)**
1. Create an awareness of the role of extension in achieving government outcomes.
2. Provide leadership in national and state extension strategies.
3. Demonstrate the impact/value of extension in achieving government outcomes.
4. Inform and influence government, industry and community stakeholders.
5. Work collaboratively in developing joint projects, sharing knowledge (a community of practice).
6. Provide a forum for discussion on professional development issues.
Goals and actions
1. Increase awareness of role of extension in achieving outcomes.
   - Action – communication strategy
2. Demonstrate the value of extension
   - Action – 12 page document, case studies, benefit/cost analysis, joint project selecting policy instruments, choice and evaluation
3. Inform government, industry and community stakeholders
   - Action – communication strategy
4. Business structure for SELN created
   - Action – NSW DPI volunteered to look after administrative functions

Roles of SELN members
- Represent each state agency’s view in SELN
- Represent SELN view in each state agency
- Advocating a national approach to extension
- Sharing and exchanging learnings, innovative approaches and problem solving and examples on innovative collaboration
- Creating opportunities for SELN engagement
- Providing leadership and direction in development of staff in extension
- Influencing state and national policy development (in consultation with other SELN members, see rules of engagement)

Representation on SELN
- 1 representative per agency with alternates (proxies)
- Invited members with voting rights: Neale Price, John James and Frank Vanclay
- Alternates encouraged to attend meetings but only 1 vote per agency if voting required
- State NRM agencies to be re-invited to participate.

Rules of engagement/ spokesperson
- What SELN members can do
  1. “I am a member of SELN”, be strong advocates
  2. Make public statements when you know it is a position of SELN
  3. Use SELN documents and reference to website
  4. To foster communication with state agency and relay responses
  5. Be coordinated in a national advocacy
  6. Be upfront if potential conflict of interest arises
  7. Brief those absent from meetings (host’s responsibility)
  8. Actively seek opportunities for advancing SELN cause and bring to table
  9. Be a spokesperson as per 2

- What SELN members can’t do
  1. Can’t put statements forward when not aligned with SELN position
  2. Can’t talk about who said what (“Chatham House Rule”)
  3. Don’t be disparaging
  4. Can’t seek to obtain funding without seeking approval from the group
  5. Can’t commit SELN unless discussed and agreed at a meeting.

Business structure and funding for SELN
- It was agreed to approach NSW Ag to act as the coordinator for SELN funds.
- Initial contribution for 2006-07 financial year $2,000 per agency being for:
  - Publishing case studies
  - Benefit/cost analysis of selected case studies
  - RDCs workshop for chairs and EDs
- NSW Ag to send appropriate invoices on behalf of SELN
### Communication and Relationships Strategy

<table>
<thead>
<tr>
<th>Key Stakeholders</th>
<th>Where they are now</th>
<th>Where want them to be</th>
<th>Vehicles</th>
</tr>
</thead>
<tbody>
<tr>
<td>SELN</td>
<td></td>
<td>Internal Communication Plan</td>
<td></td>
</tr>
<tr>
<td>State agencies</td>
<td>Aware</td>
<td>Informed, committed, engaged</td>
<td>1,2,3,6,7,8</td>
</tr>
<tr>
<td>RDCs</td>
<td>Individuals aware</td>
<td>Actively collaborative</td>
<td>Send 1&amp;4 follow with 7&amp;3 then Workshop</td>
</tr>
<tr>
<td>CMAs</td>
<td>No idea</td>
<td>Aware &amp; interested in working together</td>
<td>Send 1&amp;4 follow with 3,6,8&amp;9</td>
</tr>
<tr>
<td>DAFF &amp; DEH</td>
<td>No idea</td>
<td>Supportive</td>
<td>Start 7&amp;8, follow with 1,2&amp;3</td>
</tr>
<tr>
<td>Sussan Ley</td>
<td>Aware</td>
<td>Actively supportive, advocate</td>
<td>7</td>
</tr>
</tbody>
</table>

#### Alliances

<table>
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<tr>
<th></th>
<th>No idea</th>
<th>Supportive, aware of goals</th>
<th>4,2&amp;8</th>
</tr>
</thead>
<tbody>
<tr>
<td>NFF</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>CVCB</td>
<td></td>
<td>Actively collaborating and supportive</td>
<td>7,1,1,8</td>
</tr>
<tr>
<td>Aust Farm Institute</td>
<td>No idea</td>
<td>Aware</td>
<td>4,2&amp;8</td>
</tr>
<tr>
<td>APEN</td>
<td></td>
<td>Carry our message</td>
<td>APEN MC report and Newsletters</td>
</tr>
<tr>
<td>CVCB Tenderer</td>
<td>No idea</td>
<td>Engaged and collaborative</td>
<td>Start 7&amp;8, follow with 1,2&amp;3</td>
</tr>
<tr>
<td>Others</td>
<td>No idea</td>
<td>Aware</td>
<td>5,11,12</td>
</tr>
</tbody>
</table>

#### Tools/ Vehicles

1. 10 pager
2. 2 pager
3. Case Studies
4. Letters - introductory/ RDC Follow-up
5. Website
6. SELN members
7. Spokesperson
8. Standard presentation
9. SELN induction paper
10. Listserv
11. Media release
12. Media opportunities

Figure 10.8: Review of SELN's achievements since its beginnings and the group's communication strategy 2006

Over a dozen Action Points were then identified for specific SELN members to implement en-route to operationalising the above communication plan.

As we sat eating dinner back in Darwin, after swimming in the crystal waterholes of Litchfield National Park, I could not help but reflect that the meeting at the Douglas-Daley Research Station had been excellent as far as improving the relationships in the group and reassessing my understanding of SELN’s negotiation plan. It was heartening to talk with others about the things that SELN had achieved. Talking with John James, I reflected on this saying: “You know, we haven’t done too badly over the past eighteen months – We have a discussion document defining extension as a policy instrument that has been signed off by State Governments all around Australia. We have an active link with the RDCs and a plan now for interacting with and influencing a range of stakeholders.” “Yeah, not bad, but I really wonder
how we are going to deliver on these things?” he responded. Like John, I was unsure about whether the level of support required to deliver would be endorsed by respective State agencies. I then added: “It all gets a bit challenging when you put together recent things like the lack of progress with the two projects and the RDCs since Sydney. Peter Metcalfe has been snowed under with his work and new baby. We didn’t really work out any contingencies for such developments. Also, the slow progress that we have had with the case-studies document has been dragging on for the last four meetings. I think that somehow SELN needs some added support that we have not been able to secure through Australian Government project applications or from State governments.” “Yeah”, replied John, “I guess we are at some risk of falling behind on a few things!”

10.1.5 Signoff on the SELN discussion document

Although I have only briefly mentioned it in the above sections, a large part of my focus through the first sixteen months of SELN’s operations was on negotiating and documenting the group’s core position on extension. At the first meeting, this need was highlighted in the first document SELN commissioned to describe extension as a policy instrument. Through a highly iterative and ongoing continuous improvement cycle, I co-authored this document along with Professor Frank Vanclay, an invited member of SELN. This involved many hours, emails and face-to-face meetings with Frank and email correspondence with SELN members to help negotiate SELN’s representative position on extension as a policy instrument. At successive SELN meetings, as mentioned above, the current version of the document was presented to members for critical feedback and suggestions.

As the document progressed, it became increasingly evident that the legitimacy and credibility of the final product was important for SELN members’ interactions and negotiations with other stakeholders generally, and would be greatly enhanced with the formal support of respective State Government departments represented by SELN. As well as signed endorsement of the discussion document to signify general support, it was agreed that departmental logos should be included on the last page to represent formal support of SELN’s initiative and/or the content within the report.

The final document, “Enabling change in rural and regional Australia: The role of extension in achieving sustainable and productive futures”, was endorsed by SELN members at the 5th meeting in July 2006, notwithstanding that various members had sought and received Departmental support on earlier draft versions. The final sign-off on the document was provided by NSW government in August 2006 thus completing endorsement by all State and Territory Governments. The finalised version of the document was then professionally designed and produced in a PDF for wide distribution. The purpose of the discussion document was to “establish a common understanding of extension nationally in order to assist in creating world-class, competitive primary industries and in achieving sustainable natural resource management” (SELN 2006). The document is available on the SELN website: http://www.seln.org.au and is attached as Appendix 1.

At the time of writing (early 2010), the use of this document, both by individual SELN members as well as collectively, has not been explored at length. The fact that senior executives from State governments all around Australia have provided endorsement of the SELN discussion document provides a strong indication that there is a high degree of interest in the development and negotiation of extension policy. Furthermore, the enthusiasm shown by the core members of SELN (namely the senior executive extension chiefs from each state) for the messages the policy document was promulgating and the opportunity it provided for making a collective statement on extension nationally was exceptional. The recommendations from this thesis (see Chapter 11) can be directly applied to the use of this document in concert with other negotiation processes to move toward the outcomes SELN in seeking.
10.1.6 SELN and the CVCB project

In May-June 2006, the Cooperative Venture for Capacity Building called for tender applications for synthesising research outcomes and policy implications from the CVCB program. The task of the successful tenderer was “to engage with national policy makers and inform the development of emerging policies and institutional arrangements regarding capacity building and extension in rural industries and natural resource management.” Naturally, I was extremely interested in this project and phoned Jess Jennings, who I had been working with since the 2004 forum on proposals for a national extension framework. Jess was very excited and suggested: “Yeah mate, this project would be ideal for killing a few birds with the one stone. The research findings from the CVCB could be wrapped into the National Extension Framework stuff. We could involve APEN. The list goes on. I’m keen, let’s do it!” Even though we had been knocked back before, we stubbornly agreed to repackage some of the earlier NEFA proposals in an attempt to vindicate our previous stance on extension policy. So, over several days, Jess, who lives in Sydney, corresponded with me via email and telephone to negotiate and prepare a tender document. We proposed the nine month study as an action learning-action research process and nominated a wide network of extension stakeholders, drawing from our previous work, to be involved in the project. Despite our enthusiasm and considerable foundational material, however, our application was unsuccessful. Curiously, other SELN members had also been involved in at least four other completely unlinked project applications (which incidentally also failed to secure funding). This further ratified the informal feedback from unnamed sources indicating that program funders did not believe extension practitioners were the most effective stakeholders to influence and improve extension policy. It also reveals that SELN people were uncoordinated. The fact that I did not know about the other applications also indicates that there was not a lot of sharing (myself included) and it leads to the question about who had authority.

At the SELN meeting in the Northern Territory, the successful tenderers were announced the day we arrived. As introduced in Chapter 9, the successful tenderer was The Boilerhouse team from University of Queensland (Ipswich Campus). The director of the centre, Dr Michael Cuthill, had tendered for the project along with Dr Dana Kelly, Professor Helen Ross (UQ Gatton) and Professor Valerie Brown (Australia National University Canberra).

Notwithstanding the disappointment of those SELN members who had applied, the group discussed possible negotiations and linkages with the CVCB project, which seemed to be working ‘on the same turf’. Frank suggested: “I think that it would be good for Greg to meet up with Michael and Dana and then I will catch up with them also as soon as possible.” In two teleconferences after the Northern Territory SELN meeting, I reported meetings that I had conducted separately with Michael and Dana. I conveyed my frustrations about not being sure whether the CVCB project was going to over-ride the good work that SELN had progressed and essentially supersede and de-legitimise SELN products and outcomes.

Speaking a few days later on the phone with Frank, he said: “Hey, why don’t we both go to The Boilerhouse and meet with Michael and Dana together.” I was extremely glad that Frank and I were then able to carry this out. The morning meeting was a very productive interaction with Michael and Dana inviting SELN to provide submissions to their action research process as well as proactively providing suggestions on the future of the extension-capacity building system in Australia. In a subsequent SELN teleconference, I updated members on the outcomes saying: “It was good for Frank and I to get a much greater understanding of the CVCB project and how SELN can best connect. I guess my fears are somewhat allayed and I no longer think this project is out to disempower SELN. I think we in SELN contribute as much as we can in their short timeframe and get our voice heard that way, rather than trying to compete with them for space.” One member supported this adding: “Really, we do not want to try and duplicate what they are doing, we need to draw from their learnings.” Another member rallied and said: “We should let them get on and do their stuff. They are here for a short time only by the looks of it. SELN, by contrast, is looking more at the longer term and in
playing a strategic role rather than their short burst.” Even though I remained quite unsure about whether or not SELN should compete or collaborate with the CVCB project, I acquiesced and agreed to refrain from endeavouring to influence their process.

10.1.7 Barriers and turning points
From a DNR&M perspective, my increasingly tenuous role with SELN was brought directly into question as meeting number 6 was approaching. When I sought permission to book tickets to Adelaide for the 18-19th October SELN meeting, my direct supervisors discretely refused to allow me to attend, claiming that: “Greg, your work priorities are allocated and do not include your extended participation in this initiative.” This clash had been brewing for some time, however, and was not unexpected. The leader of the Community and Landscape Science (CLS) group for which I work had subtly requested that I downscale my connections with SELN on at least three occasions in the preceding few months. With reference to SELN meeting number 5 (in the Northern Territory), he had said: “Greg, I had hoped that this meeting would clarify your ongoing role and responsibilities in being involved with SELN. I understand from meetings that we had with Frank Vanclay and yourself where we discussed your work with extension at a national level, that the directions of SELN are counter to the developments that we have been progressing with the development of an Education Policy within DNR&M. We have seen the SELN discussion paper and prefer to continue the direction education policy discussions are leading. In the meetings that my supervisor and I have had with a number of senior people we have been asked not to replicate the extension strategy process that you were involved with previously. Some have said we do not want a re-run of the New Extension Framework.” My supervisor also added, “We see education as life-long learning and the support of knowledge management with school children as well as adult learners. This lends strongly with the compliance function and we are connecting with senior managers in that area.” While I did not argue the case strongly with them, I understood that their longer-term interpretations of extension related directly to the outdated transfer-of-technology paradigms of ’60s and ’70s models of agricultural extension (see Chapter 8). With the continual transitioning of leadership in the CLS group, as various managers secured promotions elsewhere and other group members rotated through acting leadership roles, I sensed that as a nested system, there was little coherence and correspondence within CLS and that a rolling negotiation process with these people would stall or even retard progress within DNR&M.

I was becoming increasingly frustrated with the diminishing support in CLS for my participation in extension policy discussions at a departmental scale, let alone with a national network. The gradual withdrawal of support by my supervisors for longer-term participation in SELN as a DNR&M representative was, I believe, testament to the deeper uncertainty that continues to prevail within science as well as policy and compliance staff for the effectiveness of the extension policy instrument to help achieve desired outcomes. CLS’s progressive retraction from applied research into the social dimensions of NRM arguably reflects the changing role of the department toward regulation and compliance. This scepticism was mirrored through interactions a number of senior management staff within the Community Partnerships business group. Ellen Hoover, the General Manager, requested specific benefit-cost information for the extension policy instrument before she would seriously regard the business proposition of investing in extension services to achieve departmental and government priorities. Ned Butcher, a senior staff member below Ellen further backed this up when he suggested that, “Really, Greg, you need to progress this SELN discussion paper through the official channels to begin the process of gaining endorsement. For my money though, the policy instruments outlined in here [the discussion document] are not well enough grounded with the language and understanding of staff – and, on the other hand, the net benefit of investing in the extension policy instrument is quite unclear.”
While the discussion document was been submitted to DNR&M for endorsement through formal channels, response was not forthcoming. Out of sheer frustration, I began to search for other avenues to continue my linkage with SELN.

10.1.8 SELN Progress: Meetings 6 - 13
At about this point SELN was maturing as a network and the meetings reported in the following section largely follow a line of building the qualities of the network, continuing to liaise and build links with strategic extension policy activities such as the CVCB, while remaining poised to capitalise on policy window openings, such as with PISC (the Primary Industries Steering Committee). Activity between meetings was mainly limited to email correspondence about significant events or outcomes of high-level groups (such as PISC) that have a bearing on SELN’s agenda.

SELN Meeting 6, 18-19 October 2006, Adelaide
The withdrawal of DNR&M support for attending the Adelaide SELN meeting was a key impetus for me to obtain employment within the South East Queensland NRM regional body. SEQ Catchments, one of the 14 regional NRM bodies throughout Queensland, was becoming increasingly recognised as the ‘NRM extension’ service provider working within the Brisbane environs. SEQC seemed for me the best location from which to continue research and contact with SELN. The CEO, Simon Warner, upon becoming aware of my desire to maintain contact with SELN said: “Greg, if you take on the Property Management Planning Coordination role, we in SEQC will be keen for you to continue to further links with the national extension agenda.” SELN members invited my continued membership in the group as an NRM regional body representative.
Unfortunately, my changeover from DNR&M to SEQC did not take place in time for me to attend SELN’s 6th face-to-face meeting. The minutes of the meeting highlighted that the communication plan was narrowed and the core aims were re-affirmed. SELN members resolved to formally invite my membership on the group as an invited NRM regional body representative. One outcome from Adelaide was agreement that Carolyn Cameron would attend a workshop Dana Kelly had organised in relation to the CVCB tender. Another outcome of note was a strong resolve to design an effective process for interacting with RDCs in 2007 with the aim of improving the design of projects to achieve outcomes rather than outputs. A SELN working group formed to begin this process.

SELN Meeting 7, 8-9 March 2007, Launceston, Tasmania
In March 2007, SELN met in Launceston. Buoyed by my renewed support to continue with SELN, the inclusively developed agenda and indications that a full contingent of SELN members would be attending, I was very confident the meeting would be highly productive. Notwithstanding the lack of sleep with a late plane into Launceston on the evening of the 7th, I was eager for action the next morning. I was not disappointed.

As the meeting got underway and everyone shared updates on what was happening in their respective roles, it became quite apparent that enthusiasm was high. The relaxed atmosphere, familiarity amongst the group and the ease with which individual members focused on the task at hand was obvious. One member summarised the mood when he said: “This is one of the groups that I really enjoy meeting with. We are able to cut through the crap and work toward some useful outcomes.”

The group discussed the CVCB project. I said: “Yesterday I spoke with Dana Kelly and she seemed a little unsure about the outcomes from the workshop Carolyn attended. Dana said that the diversity of intent was a key issue but tried to draw some conclusions in the workshop report. She asks SELN members to contribute to the next phase of the project, a six week web discussion, to add value to and aid synthesis of the CVCB’s research results. Also Dana wants to know the status of the SELN case studies and is requesting a case study about collaboration amongst extension stakeholders.” Following some discussion amongst
the group, one member retorted: “Well, I guess we’d better be sure about the value in us giving the CVCB case studies. It seemed that in the beginning they held us at arm’s length, but now the tide is turning.” Carolyn was quick to make a stance adding: “Yeah, but I think that we better keep our powder dry and tell them that the case studies will be available on the web after we have branded them, rather than just giving them away now.” I thought to myself that the chance for negotiation with Carolyn and the CVCB team was slim at this point and that the characterisation frame SELN members were using rendered collaboration highly improbable.

The meeting progressed and it became more apparent that SELN was beginning to move beyond storming and toward the norming phase of group development. As Peter Metcalfe read out a letter from the Parliamentary Secretary Sussan Ley that effectively delayed SELN’s proposals to meet with PISC to influence improved design of projects for outcomes, members were unfazed. John James suggested: “Hey, why don’t we run with Sussan’s suggestion of a later date but begin negotiations with the Chair-of-Chairs now so we can design our process to suit.” I could see triple-loop-negotiation taking shape before me. The conversation then took numerous turns resulting in the completely unplanned but very creative outcome that SELN design a top-down workshop process for PISC and bottom-up workshops for extension practitioners in each state. SELN members agreed that the design of these workshops was critical. The workshops themselves were targeted toward the design of projects to achieve outcomes (rather than just outputs). Plans for both the PISC and practitioner workshops came together rapidly. As ideas crystallised, one member exclaimed: “Wow, that was completely unplanned.” At the time, I reflected that this was a telling sign. Also I confirmed that SELN needed to practice adaptive management while drawing from the enthusiasm, creativity and participation needs of members and other stakeholders in this complex and changing multi-stakeholder negotiation process.

In the car on the way to the airport, the conversation centred on triple-loop-negotiation. Locky McLaren opened the discussion when he stated: “Well, I am really happy with the outcomes from this meeting.” I quizzed him about what he thought made SELN work. “It is great to be amongst a group of peers where we can align our motivations and really get something out of it”, he replied. The others in the car backed Locky up immediately. Then I began discussing my study and my analysis of SELN’s negotiation approach. “From what I can deduce, SELN seems to draw on the enthusiasm of members to move towards the resolution of issues. Building on this enthusiasm, the group negotiates the best participative process and quite readily enters creative space where reframing of interpretations and collective learning really takes off.” The support and agreement for this way of thinking about SELN’s approach was unanimous.

SELN Meeting 8, 19 June 2007, Perth, Western Australia
The June 2007 meeting in Western Australia saw a significant change in the direction of SELN. Following the success of the Northern Territory expedition, Peter Metcalfe, the SELN representative from Western Australia, put considerable efforts into planning a longer suite of activities including field visits, landholder contact and visiting some scenic sites along the southern coastline around Margaret River. While most SELN members were enthused with the itinerary, some thought that a full week devoted to SELN was excessive and others had difficulty obtaining support from their organisations to fund such a trip. As a result, the longer schedule was condensed to a single day, but nevertheless, there was still a high number of apologies for this meeting. Peter, and some other SELN members, perceived this as a lack of commitment to the group. This tension resulted in a strong push by Peter that SELN reduce its aspirations to influence extension nationally and take on more of a networking role. He moved this as a motion in the SELN meeting and the guilt in the room saw the motion carried and reluctant agreement that SELN back away from some of its earlier aims. This unfortunate turn of events concerned me deeply about the capacity of SELN to investigate and influence extension policy nationally.
At the time this was a conflict within the group, however words with some members at lunch and in the carpark later saw that almost everyone chose an avoidance strategy at this point, largely due to Peter’s disappointment at the lack of commitment by SELN members and the remorse everyone felt for letting him down. It seemed that choosing between a networking and a policy-making role was not as important as maintaining a good network and remaining an advocate group for extension and remaining poised for action (negotiation) when the opportunity emerges. It did seem however, that the group had settled implicitly on remaining opportunistic and informal rather than making formal pushes towards developing extension policy.

**SELN Meeting 9, 12 November 2007, Canberra**

Although I was unable to attend the November 2007 meeting, which preceded an APEN national forum run by Jess Jennings in Canberra, discussions with Frank Vanclay and John James after the meeting, together with the minutes from the meeting confirmed that this SELN gathering was devoid of tensions evident in the WA meeting in June. The networking function of the group was expounded with member sharing of activities and concerns from each state. Also SELN moved to progress the development of a case study booklet demonstrating extension activities and outcomes in different parts of Australia. Furthermore, SELN members also encouraged a collective voice on NRM agreeing that “everyone would take on board the ‘so what for SELN?’ in listening to the presentations over the two days” at the APEN National Forum’07 (SELN 2007).

**SELN Meeting 10, 2 April 2008, Aitkin Hill Conference Centre, Victoria**

In April 2008, SELN met at the Aitkin Hill Conference Centre near Melbourne airport. The members present continued to regroup, devoting considerable time discussing the National Research, Development and Extension (RD&E) agenda and the ramifications of reviews foreseen in PISC. It was resolved that the group needs to work hard with their own Departmental PISC contacts to embed the “E” in this process, not as part of a final step in a linear process” (SELN 2008). Further discussions about the role of the case study document strengthened the resolve of members to influence national understandings of the extension policy instrument. There was a collective push to prepare a SELN submission for the Review of the National Innovation System called by the new federal Minister for Innovation, Industry, Science and Research. The half day trip, which considered important periurban matters, as well as biosecurity issues in the wake of the Equine Flu outbreak, served to further cement the relationships and confidences in the group.

**SELN Meeting 11, 19-20 November 2008, Adelaide**

The November 2008 meeting in Adelaide involved discussions around closer involvement with GRDC and considering SELN’s role in the national RD&E review (which was separate to the Review of the National Innovation System mentioned earlier). An invited representative from PISC gave a presentation titled *Progressing the National Primary Industries R, D & E Agenda* and heralded the prospect of industry sector reviews continuing into 2009/10. A key action from this meeting was the submission of a letter to PISC providing a timely reminder of SELN’s intention to develop a future view of extension in Australia. Further to this, SELN moved to strengthen links with RDCs by inviting a representative from GRDC to present their position on extension. Much to my chagrin, at this meeting SELN members critiqued a chapter that I had written about extension policy for an APEN publication on extension in Australia (see Jennings et al. 2010). While this publication was being prepared for extension practitioners, I had emailed the text to SELN members and encouraged them to provide comment in relation to the purpose of the group. In the Adelaide meeting, it was felt that for SELN’s purposes the text was too dense, and even though there was no negative feedback regarding the negotiation approach or triple-loop-negotiation theory espoused within, target stakeholders (e.g. in PISC) needed a much smaller consumable version.
SELN Meeting 12, 15-16 July 2009, Brisbane

While there was a considerable time-gap between the meetings, the July 2009 meeting in Brisbane was regarded as very valuable by members, with John James, for example, claiming that this was the best SELN meeting he had been involved in. At this meeting, SELN statements outlining the group’s mission and purposes on the website were discussed, reaffirmed and resolved to be included as a wall chart in all SELN meetings. SELN’s aim statement was agreed as being: “SELN is a gathering of Government extension leaders and influencers from each State and Territory of Australia. SELN strives to provide leadership and strategic direction in the development of State and National extension service delivery. Extension is the process of enabling change in individuals, communities and industries involved in the primary industry sector and with natural resource management.”

Malcolm Letts\(^{128}\) helped position state government extension when he presented DPI&F’s Fresh Approach, the department’s proposed extension strategy and its underpinning “foundations for change; A Service Innovation Centre; State-wide industry focused networks; Redesign of information technology systems, and; Agribusiness Service Centres” This strategy aimed to consolidate critical mass in regional communities, implement a multi-disciplinary team environment and exploit improvements in communication technologies for enabling change. My CEO, Simon Warner, co-presented with me an example of multi-stakeholder NRM extension in South-East Queensland where we demonstrated that collaborative extension can achieve excellent synergies and outcomes. A critical shortfall, however, was the lack of incentive or conducive policy environment for extension practitioners to work together, particularly across industry, state government and regional NRM body divides. A representative from Meat and Livestock Australia (MLA), who was invited to help forge ties with relevant RDCs, provided a position on their application of extension. Similar to the comments from GRDC, the MLA message was that the D&E field is under pressure with decreased RD&E investment, increased scrutiny over the impact of deployed investments, greater formal (and informal) focus on collaborative activities and no space for duplicated/disjoint programs. The MLA representative stressed that this provided major opportunities for an orchestrated, co-ordinated approach with improved alignment of collective strategies and objectives. These presentations provided an excellent backdrop for the final outcome of the meeting, which centred around a discussion of SELN’s strategy for influencing the E component of the RD&E review. An activity proposal was developed with the following attributes:

**Title:** What will extension in Australia look like in the future?

**Purpose:** Changing perception and influencing extension stakeholders and investors

**Deliverables:**
- a. Integration of ‘E’ in the National RD&E Framework
- b. Extension policy platform for integration of collaborative extension in Australia
- c. Cost effective extension services
- d. Professional development for (participating) extension practitioners

**Project actions:**
- a. Share extension strategies amongst State Govts, RDCs, NRM, etc
- b. Plan and deliver participatory workshop series across all States/Territories:
  - Elaborate principles of extension for sustainable production and NRM
  - Presentation of Document and Case Studies
  - Participatory engagement
  - Collective development of extension models for the future
- c. Present project to RD&E review process at key phases
- d. Roe Currie coordination role

**Timeframe:** 12-18mths

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\(^{128}\) Malcolm was a General Manager in DPI&F and had strong involvement in the design of the National extension Policy Forum in 2004.
My assigned task was to develop a 'straw man' (or rough draft) to be re-negotiated at the next SELN meeting.

**SELN Meeting 13, 12 November 2009, Busselton, Western Australia**

SELN’s 13th meeting was following the APEN International Conference in Busselton, Western Australia in November 2009. This meeting saw the above activity proposal negotiated more extensively. John James used his group facilitation skills in working with the group. In considering the scope, the group decided that the main thrust of the activity needed to be toward influencing the national review of the Research Development and Extension Framework (National RD&E Framework) as endorsed the Primary Industries Ministerial Council (PIMC) in November 2008. It was agreed that SELN had a key role in coordinating input to the review on the role of E in the national RD&E Framework. After further discussion, it was affirmed that a key step in this activity was the design of how the influencing process would occur.

Once the group had progressed planning to include the key components of a project plan and assigned names and roles to activities, John James ran a force-field-analysis to assess forces driving movement toward the goal (helping forces) or blocking movement toward the goal (hindering forces)\(^{129}\). This helped refine and affirm the validity of the plan. Further to this, John ran a 6-Hats process to think creatively about different dimensions of the proposed plan.

Following this exercise, I was very excited as I could see the negotiation plan unfolding and a clear space for the triple-loop-negotiation model to be inserted (in project activity 3 above).

My story with SELN ends here for the purposes of this thesis.

\(^{129}\) Following Lewin as introduced in chapter 7
**Project Title:** Designing our preferred future for enabling accelerated change

**Project Outcome:** Developing a shared view of what extension in Australia will look like in 2 years time
1. shared understanding
2. process for designing the future
3. segmentation of stakeholders
4. demonstrating / providing value

**Project Activities:**
1. Develop value proposition for stakeholders by SELN working group??
2. Identify and form multi-stakeholder reference group through stakeholder analysis (12 members)
3. Develop process to design preferred future (B-SMART Bold + SMART outcome narrative (300 words) and theory of action (investment logic model) ID)
   - Identify and engage stakeholders to be involved e.g. RDCs, CRCs, State agencies, NRM bodies, APEN current and potential members, practitioners, AAAC, AIAST
   - Develop future outcome statement for extension (Big Hairy Audacious Goal)
   - Invite them to flesh out the framework for program design
   i. Partners
   ii. Service provision
   iii. Policy
   iv. Evaluation
   v. Models
   vi. Processes
   vii. Assets (skills and infrastructure)
   - Back casting (implementation plan)
   i. Program logic
4. Evaluation
   - RD&E designed for outcomes/ client needs
   - Willing participants during and after process who become champions for preferred future
   - Best fit of policy and approach across Australia/ industries
   - SELN has moved on to new activities – vision statement has been achieved
   - Networks and linkages improved

Figure 10.9: Project plan for SELN to influence the national review of the Research Development and Extension Framework in 2010

### 10.2 Reflections and discussion

With the instigation of SELN I found that triple-loop-negotiation was becoming an effective means of coherently conceiving and organising multi-stakeholder deliberative processes with extension leaders and practitioners. However, I was finding that facilitating reflexive interactions needed to operationalise triple-loop thinking and action continued to be challenging. Largely the SELN experience was an effective network and identity building exercise, with triple-loop-negotiation being somewhat implicit. It may be argued that negotiation was not very relevant to the situation, with conflicts remaining unclear. However, the main argument for taking a negotiation approach was to prepare SELN for interactions and deliberation with other parties that contest the positioning and funding of other policy instruments supporting change in Australia.
This section considers the interactions involved in the initiation, storming, norming and performing phases of a strategically positioned nested system (SELN) within the wider extension and capacity building system in Australia. Key among these are reflections on the effectiveness of theoretical contributions such as triple-loop-negotiation thinking and processes for facilitating multi-stakeholder processes associated with SELN.

As in Chapter 9, in general terms the facilitation process, interactions and deliberations within this research episode were largely in line with (or inspired by) the triple-loop-negotiation model. The critical difference however was that for the majority of time in SELN engagements negotiation language and concepts were not used in meetings, group plans or projects. While the desire to present the triple-loop-negotiation model to the group grew through time, and I attempted to do so on a few occasions, I felt it best to continue using the model as an implicit guide for my own understanding and assessment of proceedings. In this sense the model worked effectively, enabling me to influence activities more through discussion with individual SELN members, guiding my questions and discussion in SELN meetings and in conversations with Frank Vanclay when considering the design of and rationale for SELN activities. Also, as in Chapter 9, the consequences in general terms, were in line with what I expected from my involvement with another voluntary, unfunded group, albeit at a higher level of organisational authority, aiming to influence the challenging aim of improved extension policy in Australia. Having learned in Chapter 9 that explicit use of the model was problematic, due to negotiation language and conceptual issues, I strongly suspected that there would not be an ideal time to present the model to SELN, however lamented the fact that the replication of the triple-loop-negotiation meme may grow into an intractable issue.

These general reflections are covered in more detail in the following and divided into those aspects that worked, those that did not work and further aspects for consideration that emerged through the process.

10.2.1. What worked?

Network building – Placing emphasis on this component of the triple-loop-negotiation model as a point of entry for dealing with the complex wicked problems of extension policy in Australia was very effective. Applying triple-loop-negotiation in a different manner resulted in success as the underlying negotiation imperative was less explicit and consequently the process was not seen as potentially threatening and conflict laden from the outset. As the triple-loop-negotiation was operationalised by aiming more at empowerment, networking and identity building participants were more able to foreshadow a non-threatening interaction and see beneficial outcomes for themselves rather than project a multi-stakeholder process focussed on negotiation and dealing with conflict. The fact that triple-loop-negotiation was used as an implicit and more informal process guide contributed to its success in attempting an indirect influence on policy (e.g. State Government sign-off on the SELN Extension Statement in Appendix 1).

Given that members of SELN are geographically distributed right across Australia, the frequency of contact in SELN meetings was surprisingly effective, as was the regular email discussions. John James’s idea to establish an email list-serve specifically for SELN was a

\[\text{A list serve is an electronic mailing list. When a subscriber posts a message to the list serve everyone on that list receives a copy. Subscribers can then respond to the list serve as a whole or}\]

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further factor supporting the strong networking and information sharing capacities of the group.

One particular feature of the group which is somewhat paradoxical was the strong stance taken from the first meeting that the core membership of SELN and numbers from each organisation needed to remain fairly constant. Peter was very firm when he said, “I have been in too many groups with a rolling membership and too many people – We need to commit and stick with a small stable number to actually deliver on our purposes!”

The paradox is that SELN purports to represent both sustainable production and NRM and yet the membership is predominantly from primary industries departments with limited representation from NRM agencies (I am the only member from an agency with a specific NRM portfolio). Therefore, in order to achieve stronger representation for NRM extension SELN needs to expand membership, which in turn risks losing the effectiveness of current membership numbers.

Important here also is the actual selection of representatives from each State to participate in SELN. Membership from Queensland, New South Wales and Victoria were self-selected. These members openly expressed their enthusiasm for being involved in a national process to influence improved extension policy. In the Northern Territory, Greg Owens was an obvious choice due to his role in the APEN Management Committee. In Tasmania, South Australia and Western Australia, representatives were nominated by their senior colleagues because they had the capacity and enthusiasm to be involved with extension discussions at a national scale. Frank Vanclay was an obvious choice due to his longer-term support for extension as an academic, possibly the only Australian professor in this field. John James was also an obvious candidate due to his role as the then president of APEN and incorporation of representation of members’ professional interests within his term. As a consequence of this careful selection of suitable members, all SELN members participated effectively because they wanted to be there.

SELN interactions and preliminary outcomes have shown that a combination of face-to-face, telephone and email are essential for effectively building a network and enabling participation of constituent members. The open negotiation of agreements on mechanisms for building the network and enabling members to participate effectively has been consistently demonstrated as essential. Although network building appears inherently straightforward for SELN members, the necessity of this core component for enabling multi-stakeholder interactions and negotiations is not a trivial matter. As SELN moves into interactions and negotiations with wider nested systems, it will need to draw on and further develop these inherent strengths to build the necessary networks and identify the most effective means of participation in order to achieve SELN’s purposes.

Enthusiasm – A further strong point of emphasising network building from the outset was that a trusting and inclusive environment was formed, within which the true enthusiasms of SELN members could be articulated. The strong correlation between the original purposes that were agreed upon in the first meeting and the purposes that were endorsed by the review in Meeting 5 was testament to the fact that careful selection of participants based on their enthusiasm for improving extension was an effective strategy. This needs to be placed in

individually to the original correspondent. It is a great means for disseminating information, asking for assistance, sharing ideas and conducting on-line deliberations within a specified group.
context however. Enthusiasm was important for effective network and identity building as a staged process preparing SELN for negotiation with other parties.

When facilitating the first SELN meeting, the specific emphasis that John James put on identifying the enthusiasms in the group through projecting future scenarios of success was extremely important for engaging individual and collective motivations early. Importantly, early agreements on core operating practices (ground rules) in this first meeting provided a framework within which the diverse enthusiasms of members were welcomed rather than being assessed for their legitimacy or conformance with group norms. Explicit agreement on group principles such as ‘different, not wrong’, ‘difference is valuable’, ‘speak out without fear or favour’ and ‘work off enthusiasm’ provides a licence for members to freely build on individual and collective motivations.

**Creativity** – Creativity in SELN is closely interdependent with network building and Enthusiasm. SELN has partly aligned with the ‘beyond problem solving’ view of creativity espoused by Aarts and van Woerkum (2003). Certainly, the establishment of creative mood has been achieved and re-framing made possible through intense interactions without external pressures and distractions. Interactions have been active, balancing conative vs cognitive creativity. Non-threatening interpersonal environments have enabled participatory safety and hence creativity. External pressure has been balanced well. If anything, SELN could make efforts to incorporate storytelling and narratives and regard conflict as a source of creative ideas. This may in turn enable greater access to emotional appeal and spirituality (as per Aarts and van Woerkum 2003).

SELN has also aligned to a considerable degree with many of de Bono’s (2003) theories and tools on enabling creativity. The fact that deBono’s 6 Thinking Hats tool was used at the first meeting opened the door to using process support for improving the creative potential of the group. SELN is not concerned with describing or arguing about the truth, however, one limitation may be that the group has formed (in part) to make a case for arguing for the legitimacy of extension policy. Also SELN has its own design crisis as it has fallen short on carrying through with two excellent projects negotiated at the RDCs-SELN workshop in March 2006. It appears that while SELN designed a highly effective workshop process for taking a collection of RDC people from scepticism to the development of two great projects, it did not continue this design process to deal with the gatekeepers of the status quo. Frank Vanclay argues that: “Not doing something is not necessarily a failure when it was not the right thing to do”. This may be the case however one key concern I have is that while SELN may gained significant ground through RDC participation in the development of these projects, it may have lost more ground through a noticeable lack of follow-through.

**Uncertainty** – SELN addressed specific uncertainties in the core motivations possessed by nominated members through discussing and framing these core uncertainties as objectives and purposes that underpin the group’s reason for existence.

Following Aarts and van Woerkum (2003) and Adler et al. (undated) (see Chapter 8), for system-innovations with extension, the following uncertainties have been addressed in part by SELN:

1. Uncertain Outcome: The negotiation outcomes are intended to be win-win. SELN has sought to progress collaborative solutions to extension policy uncertainties and issues (e.g. collaborate with RDCs, the CVCB, PISC to achieve mutually beneficial ends).
2. Motive Uncertainty: The motives of SELN members as well as other stakeholders has been explored (e.g. State Government executive and RDCs) in numerous SELN meetings as well as in workshops with the RDCs and with PISC members and meetings. While not a formal undertaking, these motivations are openly discussed through presentations and casual conversations. Importantly though, further investigation of stakeholder motivations is needed in other nested systems.

3. Capacity and Skills Uncertainty: SELN members believe they have the capacity and skills to meet the groups purposes, however limited results with RDCs and the unresolved issue of an establishing an Executive Officer role within the group suggest otherwise. Further effort is required for reducing SELN member uncertainties around the actual capacity requirements (time and human resources) for making negotiations work.

4. Information Uncertainty: Information in the SELN Discussion Document (see Appendix 1) may be regarded as sufficient definition to explain and interpret NRM extension, thus reducing uncertainty about information sources. However some stakeholders (e.g. NRM) require improved certainty on legitimate sources of demand benefit-cost information.

5. Theoretical Uncertainty: Competing or fragmentary theoretical frameworks have been addressed well within SELN through the completion of the Discussion Document and somewhat with the RDCs through workshops. However, the lack of progress indicates that further effort is required in liaising with groups such as PISC and the RDCs to sustain a dialogue around the theoretical uncertainties of extension, capacity building, community engagement, knowledge brokerage, communication for innovation and other aligned bodies of knowledge and practice. This needs to be targeted in SELN’s contributions to the RD&E review process.

Uncertainties regarding the processes used to facilitate meetings and/or prepare for negotiating issues with other parties, such as the RDCs, were minimal, as SELN made considerable effort to critically discuss and deliberate processes and methodologies. SELN tends not to negotiate in adversarial and competitive ways and takes an inquiry-based approach. The prevailing negotiation stance of the group is that while positions on the value of extension are strong, other positions relating to many uncertainties in the extension-capacity building system are adaptive.

The following uncertainties, however, require significant deliberation with SELN needing to decide how to deal with:

1. Conflicting information sources, e.g. SELN choosing who to believe regarding NRM extension
2. The process of ‘perspective taking’, SELN’s plan for enabling members, and those of other nested systems to re-frame interpretations and thereby move beyond unsatisfactory compromises
3. Finding the best strategies to bypass uncertainties, selecting, reconstructing or ignoring information; shifting identities to suit the situation; shifting responsibilities, or; formalising communication (without stifling creativity)

Some SELN members seem not to challenge their ‘fear of failure’ in decision-making, particularly when they do not see a big need for investigating particular uncertainties and disturbing the status quo. This particularly relates to the uncertainty within SELN about extension for NRM. Risks and uncertainties need to be clarified and understood through research and inquiry by conflicting NRM stakeholders themselves (many of whom do not see a role for non-coercive instruments such as extension). Due to the significant levels of social, scientific or technical uncertainty about the significant impacts, costs and benefits of NRM...
extension, further research is warranted in this area, either as part of the conflict resolution process or as part of the agreements on effective policy options with multiple NRM stakeholders. SELN could oversee this research.

Following recommendations by Aarts and van Woerkum (2002) for dealing with uncertainty within participatory negotiation processes, SELN aligns closely with;
1. valuing informal conversation to build trust and sustain negotiations
2. distinguishing between long-term visions and short-term goals
3. balancing regular deliberation with constructive relations
4. using facilitators that organise, facilitate negotiations, build relations and uncover assumptions
5. including relationships with constituents as part of the negotiation process

The one area that SELN may have fallen short on is selecting participants that do not avoid the challenges of uncertainty. While executive staff from respective agencies recommended and endorsed representatives for SELN, as with many multi-agency processes, there was little possibility for the group itself to select members with particular characteristics. A further challenge for SELN as the group matures, therefore, is to explicitly explore and confront uncertainty and the current state-of-play on an ongoing basis.

**Framing** — Significant frames have emerged through this episode that describe the ways in which SELN members in their interactions with other stakeholders interpret key aspects of extension policy negotiations. While I did not elaborate the concept and value of framing with SELN within meetings, or my assessment of frames in operation within the group, I did include this information in a paper being prepared for an APEN extension publication (Jennings et al. 2010) that I asked members to review. Even though there was no disagreement with the use of frame analysis as an approach to assist negotiation processes, SELN did not seek to use this concept in further engagements. For me, the value in considering these frames was to assess different characteristics of SELN’s collective approach to dealing with and responding to specific issues, such as the approach for sign-off of the SELN document by senior executives. Even though closer assessment of these frames was developing through the latter parts of this episode, at particular points of time my interpretation of several framing categories led me to try and influence planned activities. A key example was in Bussleton where my contributions were strongly reinforcing the framing of cultural and identity aspects within SELN’s project proposal.

My frame analysis identifying valuable considerations when considering SELN’s negotiations internally and with other extension stakeholders and funders is outlined in the following table.

<table>
<thead>
<tr>
<th>Frame Category</th>
<th>My Analysis of Extension Policy Negotiation Frames within SELN Interactions</th>
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<tbody>
<tr>
<td>Identity Frame</td>
<td>Identity framing by most SELN members as ‘agricultural extension practitioners and managers’ saw considerable alignment of negotiation positions within the group. Each of the State representatives appeared to frame their agricultural extension identity somewhat differently, based on the different industry mix in their State and government priorities. This created an issue for my aims to work with SELN to advance NRM extension, however most members openly stated that for them (their extension identity), NRM was included. Interactions with RDC representatives saw that they framed extension instrumentally as a means</td>
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<tr>
<td>Frame Category</td>
<td>My Analysis of Extension Policy Negotiation Frames within SELN Interactions</td>
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<td>to increase and sustain productivity. SELN members were adamant that SELN needed to identify and assert its own collective identity. A significant outcome of the process of SELN developing the extension policy statement (shown in Appendix 1) was to enable Government executives, high-level extension stakeholders and funders to frame extension’s identity as a policy instrument. Thereby, this enabled reframing of extension from an ‘add-on’ practice, profession and discipline into a policy instrument that has a place alongside and in combination with other policy instruments to enable change.</td>
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<tr>
<td>Characterisation Frame</td>
<td>Several SELN members tended to characterise others (from other nested systems particularly agency senior executive management) as somewhat naïve and even incapable because of their poor view of the extension policy instrument’s capacities to enable change. Such characterisation frames may have been a reason for the non-productive engagement with the RDCs and the rejection of funding applications.</td>
</tr>
<tr>
<td>Conflict Management Frame</td>
<td>As evidenced by SELN’s interactions within the group, with the RDCs and with the CVCB Project, the assumed best approach to conflict is through inquiry and learning in a participatory environment. This collective conflict management frame was backed up through individuals repeatedly conveying their preference for alternatives to direct conflict resolution and negotiation approaches. SELN members supported my suggestions that the group needs a negotiation plan, however, they did not actually develop one and were reluctant to frame big differences of opinion as conflicts. Conversely, I argue that some of these differences are intractable, as evidenced by the numerous unresolved issues raised at the 2004 Extension Policy Forum, and perpetuate the positions that different nested systems take claiming that their discipline is superior for enabling change. SELN’s collective conflict management frame will continue to develop as conflicts become more apparent, particularly in the national RD&amp;E review process.</td>
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<tr>
<td>Whole Story Frame</td>
<td>Most SELN members have the advantage of a reasonably coherent whole-story frame due to the clarity of background drivers and purpose from the initial SELN meeting. Also this was largely due to the strong push by Peter Metcalfe, then the rest of the group, that membership needed to remain constant. Individual member’s whole-story frames for extension are fully supported because they are different, and add strength due through diversity. At SELN meetings however, whole-story frames possessed by members were rarely considered, particularly when proxy members or potential new members were in attendance. Also, the whole story frames of other stakeholders groups were not investigated in a considered manner, which may have limited effectiveness with some of the RDC representatives In future, inclusive investigation of whole story frames possessed within SELN and by individuals within other stakeholder nested systems would assist when designing negotiation processes.</td>
</tr>
<tr>
<td>Frame Category</td>
<td>SELN’s Framing of Extension Policy Negotiations</td>
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<tr>
<td>Power Frame</td>
<td>Within SELN, even though some members are at high executive management levels (e.g. Chief Executive Officer) and some are less senior (e.g. Project Officer), it appears that power is framed by individuals in the group in an egalitarian manner and shared evenly amongst members. This greatly assisted decision-making and negotiation within SELN. Seniority was only implicitly called upon in achieving sign-off of the discussion paper. Outside of SELN, however, the power frame that stakeholders from other extension/capacity building nested systems develop on the group’s position remains unclear. For example, feedback from confidential sources suggests that the CVCB and SELN, while both trying to assert influence, were framed by each other as adversarial and having questionable claims to power due to a lack of clarity whether each group represents the collective position of constituent organisations or simply that of a collection of impassioned individuals. In further interactions with other nested systems, SELN’s representative position will need to be communicated.</td>
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<tr>
<td>Issue Frame</td>
<td>SELN has strongly identified that issue frames are critical to effective negotiation internally and with other nested systems. SELN attempted to identify the core extension policy areas that RDC stakeholders are really concerned about in the March 2006 workshop. SELN has demonstrated its strong capacities for using participatory approaches to identify points of convergence around interpretations of the issues faced by SELN and RDCs. This capacity will be essential to advancing progress with issue framing and extension policy negotiations with other nested systems in the wider extension/capacity building system.</td>
</tr>
<tr>
<td>Risk Frame and Gain vs Loss Frame</td>
<td>Neither of these two frames was rigorously considered within SELN interactions internally and with other stakeholders and nested systems. In retrospect, this may have been detrimental to achieving effective outcomes and may prove essential for collective consideration within SELN of the risks and benefits of dealing with different nested systems. Moreover, the key stakeholders in the extension/capacity building system need to decide on the benefits of establishing mechanisms and platforms for improved coordination and coherency within this system.</td>
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Figure 10.10: Frame analysis of SELN’s negotiations internally and with other extension stakeholders (following Lewicki et al. 2003)

It has also been useful to consider memes and language as frame building blocks, in assessing SELN’s negotiation competency.
SELN members made particular effort through the development of the discussion document that the language relating to extension needed to be packaged using language that would appeal to members of other nested systems within extension/capacity building networks as well as with management, policy, economic and legal paradigms. In this way they could frame extension using terminology and concepts using familiar language.

Arguably, SELN’s most fundamental reason for being is that the members believe that extension continues to have value. They advocate for the value (to society) of extension, not just extension for extension’s sake. A subsidiary undertaking by SELN is therefore to assist the effective replication of the extension meme. SELN’s early actions have been to clarify the collective interpretation of the extension meme within the group through the development of the discussion paper. The challenging next steps are to identify and negotiate with different stakeholders the interpretation and framing of the extension meme, alongside other memes such as capacity building, knowledge brokerage and education.

| Language | SELN members made particular effort through the development of the discussion document that the language relating to extension needed to be packaged using language that would appeal to members of other nested systems within extension/capacity building networks as well as with management, policy, economic and legal paradigms. In this way they could frame extension using terminology and concepts using familiar language. |
| Memes | Arguably, SELN’s most fundamental reason for being is that the members believe that extension continues to have value. They advocate for the value (to society) of extension, not just extension for extension’s sake. A subsidiary undertaking by SELN is therefore to assist the effective replication of the extension meme. SELN’s early actions have been to clarify the collective interpretation of the extension meme within the group through the development of the discussion paper. The challenging next steps are to identify and negotiate with different stakeholders the interpretation and framing of the extension meme, alongside other memes such as capacity building, knowledge brokerage and education. |

Table 10.11: SELN frame analysis with emphasis on language and memes

Such a frame analysis, albeit brief, could provide a facilitator with a valuable insight into SELN member and collective group characteristics and preferences for negotiating internally and with other parties. This may be used when designing SELN meetings and would also be used in an explicit manner with the group to encourage autopoiesis (reflexive self management) and informed design of negotiations with external parties.

This conception and further analysis of key frames in the extension policy negotiations is presented above as a reflection-on-action. These frames have been developed, however, more as a reflection-in-action, which has involved frequently looking to my personal experiences and connecting with my theories in use and balancing these against literature. Despite the inherent complexity, the concept of (re-) framing is a very powerful tool providing a discursive framework to support social learning. An emerging development as SELN moves to designing projects for outcomes working with PISC is the notion of framing current tensions in order to move toward a desirable future state, or in other words, reframing the future.

**Action Science and Theories of Action** – As in Chapter 9, an ultimate aim of this episode was to disturb the status quo through action, and influence improved theory and extension policy in Australia. Arguably, this aim was achieved, at least in the short term. When we consider the espoused theories of many key participants in this episode, it can be argued that there was considerable alignment between the espoused-theories that people claimed to follow and their theories-in-use or those that can be inferred from actions. Noteably, there was strong alignment between the rules of engagement (espoused theories) outlined in SELN meeting 5 in 2006 and the actions undertaken by SELN members through the ensuing years (theories-in-use) where some members, particularly Locky, Regina and Peter, were able to represent SELN’s positions within interactions with PISC and the national RD&E review. Also the regular review of SELN’s mission statement and rules of engagement (see SELN meeting
records in Sections 10.1.4 and 10.1.5) saw ongoing inquiry into whether the group’s espoused theories were actually manifest as theories-in-use.

An important action science reflection for myself however was the ongoing dissonance I felt from a lack of consistency between my ‘espoused’ beliefs in a negotiation approach including developing a triple-loop-negotiation plan and the ‘action’ or behaviour I exhibited. This may be illustrated through reflection on my own information chains where I continually tried to encourage SELN to develop a negotiation plan which identifies critical mismatches in what others were telling me and in how I reacted to their message. It was surprising however that SELN did develop a negotiation plan at Busselton for 2009/2011 by virtue of a project proposal for responding to the RD&E review. Therefore, my persistence in advocating a negotiation approach may have resulted in reduced dissonance between my espoused-theories and SELN’s theories-in-use.

**Social Learning** – From a social learning perspective, SELN has identified from the outset that investigation of other perspectives is fundamental to “enabling change in individuals, communities and industries involved with primary industries and natural resource management” (SELN 2006). The social learning ethic of extension is expounded in the SELN discussion document particularly relating to the transitions of extension methodologies through time. SELN advocates that extension from the 1990s onward has been employing “social learning processes and participatory methodologies as a means to enabling practice change” (SELN 2006).

Based on this epistemological position on influencing and enabling change, SELN has endeavoured to practice what it preaches in social learning with other stakeholders and nested systems as well as with internal group interactions. The use of negotiation language and concepts in initial meetings, as a means to achieving SELN’s aim of providing leadership and strategic direction in the development of State and National extension service delivery, was a key impetus driving the need for social learning. SELN identified that it needed to address the learning processes among multiple stakeholders (such as State Government executives and national executives in PISC), to help design concerted action at a variety of scales. The triple-loop-negotiation model provides a basis to explain that in order for SELN to facilitate, or at least be involved in this social learning, enabling enthusiasm and creativity were also essential. The consideration of key frames above also helps identify particular dimensions of this social learning process.

The challenges SELN faces in operationalising social learning for influencing improved coherency and correspondence of extension policy in Australia are not related to confusion about the fundamental learning approach. Other stakeholders and nested systems appear to share the perspective that social learning is an essential methodology for bringing different policy positions together (see Chapter 9). SELN has further evidenced that impediments to enabling social learning appear to be more related to securing funds and political support for extension stakeholder interaction. SELN is part way along the path to developing the processes and capacities for negotiating collective investment of resources to permit extension/capacity building nested systems to interact and create the institutional space necessary for multi-stakeholder extension policy to be developed. A key tension within the group, however, was the uncertainty in some members of the net benefits and appropriateness of SELN playing a lead role in organising and facilitating this wider social learning process. Presentation of the collaborative inquiry based approach to social learning in the triple-loop-negotiation model may have allayed these concerns.
Triple-loop-negotiation – While I did not introduce SELN to the triple-loop-negotiation model by way of a formal presentation or discussion paper, it is surpising how effective SELN has been at indirectly influencing extension policy while aligning quite strongly with the model. SELN has not been explicitly negotiating in a planned manner, but has been reflexively engaged within extension stakeholder networks (e.g. through the R&D&E review) to influence outcomes. I made efforts to briefly introduce the model in SELN’s first meeting and then to include different features of the model in most of my following interactions with the group. Responding to early misgivings of some SELN members and their hesitancy about pre-empting complex multi-stakeholder conflicts and planning negotiation processes without a guarantee they will actually eventuate, I decided to adapt my negotiation agenda. I resolved that only when the need arose and/or a level of maturity developed within the group that I would re-open discussion about SELN’s negotiation approach, and I would continue to practice triple-loop-negotiation as my theory-in-use through all interactions with SELN.

This assessment was ratified by Frank Vanclay when I gave him a draft version of Chapter 8 which speculated on an appropriate means for introducing triple-loop-negotiation thinking and action with SELN. Frank advised that he believed SELN was not yet ready for such a document and it may be counterproductive to expect busy leaders to take the time to read such complex material. He suggested that an option may be to prepare a two page proposal for SELN. This could be a shorter version with a simple guide on how SELN may consider ‘process management’ approaches in achieving agreed purposes. Then, when I have permission or interest, I should then proceed further.

Likewise, in discussions with John James specifically about the triple-loop-negotiation model and its application in achieving some of SELN’s purposes, he agreed with Frank:

For time and resource poor executive managers, it is difficult to introduce such thinking in one burst. I fully support the core elements of enthusiasm, creativity, participation, reframing and social learning, but somehow I feel that the group is not there yet. If we look at the level of group maturity, SELN is still in the ‘forming’ and ‘storming’ stages and has some way to go before it reaches the level your model is advocating. With participation, SELN seems to do very well with meetings, teleconferences and email discussion, and there is certainly will and capacity to participate with other stakeholders like the RDCs. There are several tools that we could use to work with enthusiasm. It’s the ‘WIFM, what’s in it for me?’ question. The 4Ps model\(^{131}\) is great for identifying motivators and drivers central to enthusiasm. And great tools for creativity are force-field-analysis and scenario planning. Hey I really think that a force-field-analysis would be great in Adelaide (at SELN meeting 6) to look at some of the reasons that the group is holding back on some things – Like the case study document. But really I am concerned that it may be jumping in too early. We probably should wait to see if the time is right in Adelaide (James 2007:1).

While I was quite disappointed and somewhat resigned, I kept thinking that we cannot wait for SELN to reach the norming and performing stages of group development. That may take another two years, and I believed that SELN would have missed its chance to influence the direction of NRM extension.

Frank raised a challenging dilemma when he made the comment, “To some extent, you are being somewhat reflexive/critical of SELN. That is fine as an outside individual, and I am too. But as a member of SELN, I accept what SELN's purpose is. I change my hats and a play a

\(^{131}\) 4Ps Model: Purpose; Passion; Process; Progress and Support (Foster 2005).
different role.” This raises the paradox of advocating triple-loop-negotiation by lecturing SELN members in a didactic manner. This actually contravenes the core epistemological positioning of the model. The underpinning intention of triple-loop-negotiation is to organise and facilitate the achievement of effective solutions in complex multi-stakeholder negotiation processes through constructivism and emergence rather than forced adoption of the ‘right way’ to negotiate an issue. The negotiation process itself is up for negotiation and the key components of the negotiation model preferred by a group may in fact be different to those I have included in the model developed in Chapter 8.

How best then to encourage and enable others to negotiate how they negotiate in multi-stakeholder and thereby improve their approach(es) and the effectiveness of the outcomes achieved from these deliberative processes? Arguably it boils down to practicing what I am preaching, and through participation within multi-stakeholder processes, identifying the stage of maturity of the group and those dilemmas that defy achievement of collective outcomes, appear to be intractable, or result in undesirable outcomes for the group or some of its members. Only then is it appropriate to present a simple proposal to the group that they negotiate how they negotiate and provide open access to further theory and examples if required.

10.2.2. What did not work?
Two major issues that did not work in SELN’s extension policy interactions and negotiations were paradoxical when considered through a triple-loop-negotiation lens. The first issue related to the reluctance of some members to consider the depths of triple-loop-negotiation thinking during SELN’s developmental phases and to design a collectively considered negotiation approach to dealing internally and externally with other extension stakeholders. I am aware that I did not sell it to the group very well, largely due to my concern that an early outright rejection may prevent any serious development of a negotiation plan for some time. Also, I was conscious that there was a possibility that reflexive negotiation happened implicitly/tacitly anyway and did not need to be consciously considered.

The second issue related to the inability of SELN to carry through and progress the implementation of the two joint projects agreed at the SELN-RDCs meeting. This could arguably have been due to the lack of an agreed rationale to guide SELN members in proactively negotiating with key RDC stakeholders and enabling a collaborative engagement. Such a plan would have enabled other SELN members to support those nominated to progress the projects when circumstances changed. Moreover, a negotiation plan would outline contingencies for implementing projects. This is critical when we consider that SELN is a volunteer organisation where members are busy executives doing things in voluntary capacity and are unable to deliver on every detail. In both projects, the non-result may have been avoided if SELN had developed an adaptive plan of engagement that identified how SELN members would negotiate with their RDC counterparts and refocus support when required.

It is possible that I have misinterpreted this second issue, because where concerns were regarded as important to different stakeholders, they still happened. Conceivably, the projects that were agreed to may not have been perceived as important enough to some stakeholders. A further issue in my assessment is that development of an adaptive plan was my perceived need, which may not have been the perceived need of other SELN members.

A third issue that did not work, for me at least, was to secure DNR&M agreement in principle on the SELN discussion document and sign-off. Perhaps it was overly ambitious of me to
expect this within four years of SELN establishing, however, a lack of a negotiation plan was surely a limitation on how to do this in Queensland as well as with NRM organisation in other states/territories. Understandably, SELN has a (sustainable) production agriculture focus. While it has been discussed that SELN will welcome NRM input when there is a clear participant and assurance it will succeed, it is also accepted that members do not want to force it. To achieve my own aims of improved NRM extension policy, it may take a sister group to SELN that includes extension leaders from NRM stakeholders in Government and NRM Regional Bodies.

The fourth aspect of this episode that did not work, which is possibly the most significant for this research, is the consistent tensions around the language of negotiation and failure to easily enrol SELN and stakeholders in the practice of triple-loop-negotiation. Perhaps a more engaging term is triple-loop-agreement.

**10.2.3. Emergent learnings from SELN activities**

Following are a number of conclusions from this research episode regarding the use of the triple-loop-negotiation model as an implicit guide for the facilitation of multi-stakeholder extension policy negotiations:

1. The strengths and value of an un-funded, self-organising and voluntary group, such as SELN, in achieving their aims and influencing change can be very positive if the group employs a reflexive model of engagement such as espoused by triple-loop-negotiation. Triple-loop-negotiation appears to have been a useful model for helping to indirectly support and guide a group such as SELN to influence extension policy through formal and informal networks rather than a planned negotiation approach.

2. There is value in guiding the facilitation of multi-stakeholder process by assisting the facilitator(s) of in the design of meetings and interactive processes that incorporate triple-loop-negotiation concepts. The facilitator, in this episode John James, was able to incorporate components of triple-loop-negotiation in group processes.

3. Considering extension as a policy instrument is a valuable means of reframing the identity of the extension practice, profession and discipline from that of an ‘add-on’ component of the traditional research, development and extension continuum into an identity as a policy instrument for use in its own right, or in combination with other policy instruments to enable change.

4. The language of negotiation, as contained in the triple-loop-negotiation model, appears to thwart efforts to engage multiple-stakeholders in using a ‘negotiation approach’ for addressing issues where there are divergent and often conflicting positions. SELN members acknowledged the need to negotiate but preferred to do so in an adaptive and responsive manner through formal and informal networks, rather than through a planned negotiation approach.
Chapter 11: Conclusions and recommendations

11.1 Drawing conclusions from research episodes

This thesis recounts a research journey comprising a series of action research episodes from 1999 to 2009 investigating the outcomes of attempts to (re)institutionalise extension policy in a public natural resource management agency. This research has taken extension investigations with the Queensland Department of Natural Resources and Mines (DNR&M), to a national scale with involvement of numerous stakeholders in the Australian extension/capacity building system. This final chapter reconstructs learnings grounded in seven research episodes into an abridged series of key messages and recommendations for improvements in NRM extension in Queensland and for extension policy in Australia. The key focus has been on natural resource management, however it is anticipated that agricultural and other forms of extension and community development should benefit, as these systems are inextricably linked. It is helpful to reconsider this research journey and the research questions to provide a context for the conclusions and recommendations that follow.

11.1.1 Reflecting on the line of argument

The central line of this research has been inductive and guided by learnings in successive episodes. Responsive adjustments to the direction of inquiry have been framed within the changing institutional and political context of extension and NRM in Australia, especially Queensland. Starting with the development, then non-endorsement of an extension strategy originating in DNR&M and preliminary analysis of this outcome (chapters 2 and 3), a theoretical framework was developed (chapter 4) which aimed to investigate and identify the barriers to implementing NRM extension policy.

A closer investigation of the barriers preventing endorsement of the extension strategy revealed that the capacity of agency extension staff to resolve complex institutional processes involving multiple stakeholders is limited. Literature was reviewed (in chapter 4) seeking understanding of the philosophy of multi-stakeholder processes, particularly relating to negotiations involving different paradigms.

The research line then focused on deeper inquiry into negotiation approaches in DNR&M through two research episodes (chapter 5) investigating the relationship between how institutional NRM stakeholders construct their understanding of a complex ‘extension’ issue (or meme) and how this issue (or meme) takes a life of its own and either lives (replicates) or dies in the exchange. It was found that paradigm differences between key stakeholders in both the ‘compliance’ and ‘natural resource information’ episodes and other NRM stakeholders (with various paradigms) were crucial barriers to achieving effectively-negotiated outcomes. However, while it was found that the constructivism-memetics theoretical framework (developed in chapter 4) was a useful means of describing and analysing conflict, and perhaps conducive to collective inquiry into the best negotiation approach, it lacked the language and accepted methodologies to assist interactive design of ‘institutional’ multi-party negotiations, (i.e. such as negotiations around extension policy).

Reviewing the literature on the facilitation of organisational learning and reflecting this against recent extension theory relating to NRM and multi-stakeholder processes saw more robust theoretical frameworks for designing participatory negotiations emerge (in chapter 6).
Organisational change, adaptive management, subsidiarity, autopoiesis and soft systems thinking was incorporated along with negotiation theory. Adding to this, extension literature on the role of enthusiasm in enabling change was included. A triple-loop-negotiation model was proposed as a tool for considering the transformational thinking required at personal, informal institutional and formal organisational levels to design effective negotiation processes for resolving complex extension policy issues.

In two further research episodes (chapter 7), this developing theoretical framework was incorporated in action research and the triple-loop-negotiation model began to take shape. In efforts to renegotiate the Rural Water Use Efficiency program (an industry-based extension model), scenario-planning was used as an effective tool for negotiating future contingencies amongst program partners. While power issues prevailed and were not adequately dealt with, other theoretical components of the model were effective, including dealing with wicked problems, building on enthusiasm, choosing an effective negotiation approach, working with paradigms, incorporating memes, and advancing the constructivism-memetics dialectic, using ‘systems thinking’ and ‘learning organisation’ tools, as well as providing an effective facilitation approach. In the ‘Beyond New Extension’ research episode, while many of the same ‘negotiation’ components worked effectively, the ways that different senior power players interpret extension stifled further progress. Rather than power being the major direct barrier, however, impediments to further progress were directly related to how key management stakeholders (mis)interpreted extension and the longstanding paradigmatic opposition of one deputy director general. “Greg, we are not involved in extension, we are not working one-on-one!”

A deeper investigation of the social learning literature (chapter 8) strongly identified that tools enabling active inquiry into the perspectives of different parties in a multi-stakeholder process needs to be at the very centre of the triple-loop-negotiation model. Therefore, in addition to existing components, additional support for organising and facilitating triple-loop-negotiation was investigated in Chapter 8. The organisational change literature revealed that institutional ‘blind spots’ are frequently the cause of seemingly irreconcilable differences at various scales. This inconsistency between espoused values (what we say) and actual values (what we do) lies at the core of many difficulties within interactions and relationships amongst individuals and groups. Exploration of these blind spots using the triple-loop-negotiation model is examined (chapter 8). Further investigation of the literature on intractable NRM conflicts revealed that ‘framing’, or how people interpret a conflict, and the encouragement of ‘reframing’ to enable frame conformity or alignment can be an effective aid for moving toward resolution of the issue. Frames act as lenses through which people in a dispute interpret conflict dynamics (Lewicki et al. 2003). Frame analysis is often used in a deliberate intervention process to create conflict or strategise towards certain outcomes. Likewise, literature on creativity was explored with the aim of enabling ‘reframing’ by creating the environmental conditions necessary for thinking outside the conventions of established positions and ‘cages of prejudice’. These additional components were included within the triple-loop-negotiation model for further application in further research.

In two successive episodes, the triple-loop-negotiation model was my espoused theory, and at least for me, the core underpinning framework around which action research was progressed. To varying degrees, other members and participants in these episodes may have known, felt or agreed that the triple-loop-negotiation model was, in part, guiding events. The point of entry for instigating the National Extension Policy Forum was through engaging the enthusiasm of a wide range of extension stakeholders within agricultural and NRM spheres.
for improving extension policy generally. Individuals were invited to attend a national extension policy forum and provide creative inputs on the key aspects that make them uneasy about extension in Australia. Then, with my coordination, the working group planned and facilitated the forum (albeit unknowingly) using the key components of the triple-loop-negotiation model. Outcomes were mixed, with the working group unprepared for the divergence of perspectives, dissent and complexity that emerged. Positive results were that a draft National Extension Framework for Australia (NEFA) was proposed with a recommendation that the working group carry this forward. With the growing level of maturity in the working group, along with my own confidence in the validity of the triple-loop-negotiation model's use in extension policy development, I presented it at a working group meeting that had been convened around a funding application for developing the NEFA. The working group supported the model in principle, albeit rather superficially, and developed the application using the core components of triple-loop-negotiation. Arguably, working group members supported the more general key principles, but when I framed proceedings using 'negotiation' terms people did tend to become sceptical and less committed. The components people liked were more generic, and equally apply to a learning based approach. Despite the success of this process, the funding knockback was a major setback for the working group. Without funding, the group was powerless. It seemed that another group with greater profile was required to move negotiations forward.

This hiatus was filled in the ensuing research episode with my instigation of the State Extension Leaders Network (SELN) comprising extension leaders from each state and territory of Australia. I described SELN as a nested system with strategic links in the national extension–capacity building system. Again, the triple-loop-negotiation model underpinned my actions with enthusiasm for improved extension policy as the driver for engaging contributions to a national discussion. With SELN, however, I rapidly moved from the role of coordinator to one where my capacity to influence the application of the triple-loop-negotiation model within interactions was as a group member. The triple-loop-negotiation model was introduced implicitly in this episode and was used more as a guiding process checklist for myself and my contributions (and leadership) to SELN rather than as an explicit process model for organising group activities. The emphasis within the model was placed on network building with the main intention being to help prepare SELN as a relatively homogeneous group for negotiation with other nested systems. SELN processes have been strongly aligned with the social learning centre of the model with enthusiasm, creativity and participation being the driving elements taking the group forward to progress actions toward the ultimate implementation of improved leadership and strategic direction in the development of State and National extension service delivery (possibly a NEFA). SELN acknowledges that its capacity to influence may be bounded by State Government administration, but hopes to influence aligned stakeholders networks in federal, NRM and industry sectors.

I intend to continue the applied research line by presenting the triple-loop-negotiation model, along with the following conclusions and recommendations to SELN members for their consideration, modification and further application in the RD&E review, as well as NRM stakeholders in Queensland.
11.1.2 Responding to research questions

Following are responses to the research questions focusing on NRM extension in Queensland starting with those posed in Chapter 4. Efforts to answer this probe into extension in Queensland have resulted in a wider inquiry with an additional research question added from Chapter 8. Closure on these questions in the following section contextualises subsequent messages and recommendations which are then included in Section 11.2.

Key Research Question: “What processes and approaches do people in Natural Resource Management use to negotiate outcomes given the different values and paradigms in the department and the community, and in what ways can these approaches when reflected against literature, inform, develop and institutionalise Extension in the Department of Natural Resources & Mines?”

Investigations around the general research question have identified that NRM issues include wicked problems that cannot be resolved through traditional analytical models of science or standardized into tenets of law. The approaches institutional NRM stakeholders use to negotiate with the resolution of these wicked problems lack rigour and are not organised in line with contemporary negotiation methodologies. Negotiation processes are driven by the enthusiasms and epistemological leanings of the influential figures or ‘power players’ in a given situation. The risk-averse approaches of DNRM staff, for example in sections 3.3, 5.1.3 and 7.1.2, see that the willingness and capacity of stakeholders to critically contribute to deciding how a decision is going to be made is limited and varied. The perpetuation of numerous overlapping initiatives and competing agendas is arguably the result of this lack of capacity to design effective negotiation processes.

When reflected against negotiation, organisational learning and other literature, it could be argued that these current approaches require considerable reform. While many stakeholders may espouse their belief in inclusive and participatory decision-making processes, the negotiation approaches they actually use often seem to revert to competitive realities and lack the characteristics of truly integrative negotiations. For example, key stakeholders involved with compliance in DNRM, while they may convey an appreciation that non-coercive instruments need to be integrated with coercive instruments for achieving sustainable outcomes, tend to revert to coercive and authoritarian (positivistic that exclude speculation upon ultimate causes or origins) approaches in multi-discipline processes (see Chapter 5). Even those involved with the management of extension programs in Government do not seem to have strong capacities in negotiating effective policy for primary production and other sectors, as well as for NRM (see Chapters 3, 7, 9 and 10). Extension policy does not emanate from a vacuum. The institutionalisation of extension in DNRM requires that improved models and capacities for multi-stakeholder and interdisciplinary negotiation are needed by key extension policy stakeholders themselves. This includes mechanisms and tools for informing and negotiating with senior executive in respective NRM agencies to identify the necessary instruments for achieving outcomes and the role of extension within that. The triple-loop-negotiation approach is proposed as a key vehicle for enabling this extension policy negotiation process.

Throughout this research (Chapters 2, 3, 5, 7, 9) the prevailing approach, or theory-in-use, is for people in an organisational setting to try and negotiate outcomes and influence change in a planned and somewhat positional manner. Often this is despite their espoused-theories being supportive of participatory decision making. Surprisingly, time illustrated that even though planned approaches were attempted, the negotiation often happens through formal and
informal networks in a parallel, but less planned manner (e.g. the refunding of RWUE in Section 7.1). This finding is supported by numerous critiques of planned approaches to change (e.g. Burns 2004, Todnem By 2005), or supporters of actor-oriented sociology (Long 1992). Thinking more broadly, a core issue is about how much a community is able to bring about its own direction and resources, or needs an active and trustworthy agency or intermediary as a third party to support its evolution. I argue that both strategies are suitable (based on explicit and indirect use of triple-loop-negotiation to guide multi-stakeholder processes in Chapters 7, 9 and 10) and should be used for different situations, and that policy interventions should be flexible and context dependent. Policy interventions can have the ability to reduce social cognitive failures which especially seem to arise in early stages of novel paradigms, where social capital in a new domain or area of concern is very low. Many interventions and tools in place aiming to enhance social capital are actually used in policy making though not always in an established and coordinated way. Efforts to advance social capital require that actors identify themselves in the community of practice and that they find motivation through participating and interaction. Forums for social and expert interaction have ability to attract actors and create contexts for common sensemaking. These contexts are also important in establishing shared narratives. This research has demonstrated (in Chapter 10) that a nested system within the extension community-of-practice can articulate shared narratives and improve sensemaking within the community and with external stakeholders and funders through taking a more indirect rather than planned route to influencing change. Such an approach within NRM circles in Queensland would help institutionalise extension in DNR&M as well as regional NRM bodies, industry and community stakeholders.

1. How do actors construct their understandings of the NRM issue(s) at the centre of a negotiation?

As evidenced in research episodes, NRM issues involve numerous institutional stakeholders often within complex networks. The epistemological leanings of stakeholders from different paradigms largely influence how NRM issues are understood, and indeed how these stakeholders conduct themselves in negotiations. For example see Section 5.3.2 and the stark contrast of the coercive approach of compliance staff and the non-coercive approach employed by my extension practitioners. Different communities-of-practice that exist within NRM organisational networks have a strong tendency to construct their understandings of NRM issues in quite different ways. The strong economic rationalist approach of Queensland Treasury in Section 2.3.3 saw NRM issues constructed and understood in terms of the cost-benefit of interventions. The strong coercive approach of the Compliance unit in Section 5.3.2 saw NRM issues constructed and understood in terms of their regulatory implications along a compliance continuum. The prevailing approach of RWUE extension practitioners in Section 7.1 was to take a participatory approach to constructing and understanding NRM issues through considering different future scenarios within irrigation networks and the impacts this may have on different stakeholders. The lack of inquiry into how different institutional stakeholders and communities-of-practice, complete with their epistemological leanings, construct their interpretation of (or frame) NRM issues is a key reason for ongoing intractable conflict (e.g. institutionally with NRM extension or globally with climate change).

2. What memes are central to and/or are exchanged in these NRM negotiations, and which of them replicate effectively?

Memes central to NRM negotiations in Queensland that are exchanged and replicate effectively include ‘compliance’, ‘regional NRM arrangements’ and ‘capacity building’.
Conflicting memes central to the ‘NRM extension’ space include ‘capacity building’, ‘community engagement’, ‘social marketing’, ‘NRM education’ and ‘knowledge brokerage’. It is interesting to note that each of these memes are largely overlapping and quite compatible with extension, with the differences largely emanating from the organisational units or institutional groups that support these different bodies and knowledge and practice. So rather than a clash of memes, the conflict is more related to the lack of visibility each group is afforded of the other groups’ memes and the institutional barriers which, often unintentionally, stand in the way of effective dialogue and meme (re-)alignment. As described above, it is these institutional blind spots which play a large part in the capacity of different memes to replicate through time. Evidence has seen a transition from ‘old extension’ to ‘new extension’, to ‘capacity building’ (Chapters 1, 2, 9 and 10) and now to ‘knowledge development’ (see page 6 of the SELN policy statement in Appendix 1). While the generation of these new and different memes may be intended to support the creation of more effective policy instruments, without effective multi-stakeholder fora in which these memes may be investigated, negotiated and improved, and with institutional blind spots thwarting dialogue, the result will always risk being suboptimal. Evidence shows that poor negotiation of various memes risks decreased legitimacy of NRM organisations. Examples of this is the ambiguity that perpetuates with numerous overlapping organisational programs such as the Capacity Building Strategy and the Extension Strategy in Chapter 2 and numerous Natural Resource Information programs that seem to an outsider to be almost the same (See Section 5.1.3). The changing complexity of disorganised NRM interventions, regulatory requirements and service provision sees natural resource managers struggle to keep up and react defensively to non-negotiated changes, e.g. the panic-induced clearing of vegetation in Queensland as the Vegetation Management Act (see Section 2.2.3) was proposed using the enforcement of regulation as the main policy instrument to achieve responsible vegetation management (Queensland Government 2006a).

3. What is the relationship between how actors construct their understanding of NRM issue(s) and the memes which are central to and/or are exchanged in these NRM negotiations

A positive relationship between an NRM initiative and the memes which accompany it is arguably a healthy sign for its institutionalisation (e.g. Landcare). The dialectic relationship between the memes and social constructions of specific initiatives in the non-coercive change space (e.g. incentives, extension, capacity building or knowledge management) appears to be strongly influenced by an institutional environment that favours the development of constructs in competition with each other rather than partners in collaborative space. This cultivates adversarial interaction and ‘distributive’ negotiations amongst stakeholders from different initiatives. Everyone wants to defend their meme and its constructed interpretation as being a highly effective approach to enabling NRM practice change. The self-serving dialectic relationship that develops with each of these memes plays a large part in the perpetuation of overlapping initiatives (e.g. capacity building, extension, community engagement) and ‘silos’ within agencies. These ‘silo’ issues are further exacerbated by the institutional blind spots that develop. Stakeholders from different paradigms are blind to the discrepancies between what they espouse and their actions, and are defensive if this is pointed out to them (e.g. see the Compliance episode in Section 5.3). As a consequence issues like extension policy become intractable as stakeholders from different paradigms (e.g. regulatory compliance and extension) become blind to how others perceive them. Moreover, they then misinterpret how ‘opposing’ stakeholders construct their realities about how their meme influences sustainable NRM practices. Thus, without effective tools and means to organise
and facilitate negotiations across these silos of constructed reality, organisations such as DNR&M risk becoming dysfunctional. Potential policy instruments such as extension, capacity building or regulatory compliance are not afforded the necessary institutional space to be openly considered, negotiated and institutionalised.

4. What theory can be developed about institutional NRM negotiation processes in Queensland?

NRM extension policy does not emanate from a vacuum. Where senior executives possess different philosophical, theoretical, ontological and epistemological approaches to those inherent within particular policy instruments (such as extension), advocates for these ignored policy instruments may require particular tools and approaches for enrolling and negotiating with executive gatekeepers. The triple-loop-negotiation approach is presented as a theoretical model for organising and facilitating multi-stakeholder negotiation processes that enrol the common (and complimentary) enthusiasms of opposing (divergent) parties, promote creativity and identify the best level of participation to achieve effective outcomes. Such theoretical models can also inform NRM extension practice generally as a deliberate approach to enabling continuous improvement of the extension policy instrument itself. The triple-loop-negotiation approach is also elementary to the core components of the adaptive management framework (see Leach et al. 2006) and engaged government tools which seek stakeholder collaboration (see Oliver 2006).

5. What is the effect of using these understandings with the aim of assisting the institutionalisation of extension?

And from Chapter 8, more specifically:

6. What is the impact of using the triple-loop-negotiation model as an explicit guide to instigate and facilitate institutional stakeholders negotiating NRM outcomes (in particular the institutionalisation of (NRM) extension) using language associated with the model within interactions?

7. What is the impact of using the triple-loop-negotiation model as an implicit guide for a facilitator to operationalise (without using negotiation language) identity building, feelings of interdependence, autopoiesis (self-organisation) and strengthening group position prior to progressing negotiation with others?

In DNR&M, extension is virtually dead and its resurrection is an intractable issue. Senior executives and gatekeepers are the primary targets for enabling reframing of interpretations of the extension policy instrument. As evidenced by the non-endorsement of the New Extension Framework and the problematic outcomes of the National Extension Policy Forum, extension requires new models to support its own existence and continuous improvement, legitimacy and relevance. Triple-loop-negotiation is a process approach for enabling autopoiesis (reflexive self-organisation), or the drive from within that breaks through self-referentiality. Research findings have indicated that extension policy for NRM needs to rest within a more coherent national extension system. Efforts to improve this coherency have involved the initiation of the State Extension Leaders Network (SELN) as a nested system within the national extension and capacity building system. SELN has strategic potential for influencing greater coherency, coordination and collaboration amongst the different nested systems (e.g. NRM Facilitators, Landcare Coordinators, Industry FMS staff, State Government extension staff and regional NRM body extension staff). SELN secured the sign-off by State governments around Australia on the extension policy instrument defined in the SELN discussion document.
On the basis of earlier research where the triple-loop-negotiation model was used as an explicit process guide, but with problematic outcomes, SELN employed the key components of the triple-loop-negotiation model in an implicit manner to secure this sign-off and with other planned initiatives. The impact of focusing on the network building aspects of triple-loop-negotiation, while preparing an homogeneous group for negotiations with external parties, and minimisation of negotiation and conflict management language, has resulted in significant outcomes for extension policy in Australia. Interestingly, considering the impact of the SELN hermeneutic arena on wider Australian extension arenas, the notion of ‘extension policy’ has had a fundamental influence on the consideration of extension itself by Primary Industry Steering Committee (PISC) members, State Government managers and RDC stakeholders. This could be likened with the concept of ‘double hermeneutics’ proposed by Giddens (1990), where “knowledge claimed by expert observers ... rejoins its subject matter ... thus altering it.” (Giddens 1990: 45). SELN’s plans are to engage with nested NRM extension systems which will involve engagement with agencies such as DNR&M and use of terms such as the ‘extension policy instrument’ and ‘building capacity for change’. Therefore the institutionalisation of NRM extension policy in Queensland State Government and regional NRM bodies may well be a ‘double hermeneutic’ effect that comes from action science research into extension that in turn influences the way policy makers perceive and apply this instrument.

8. What is extension’s role in supporting institutional NRM negotiation processes?

As endorsed by the State Extension Leaders Network, extension is a strategic policy instrument that is useful in its own right for bringing about change, but also has a vital role to play in conjunction with other policy instruments for achieving desired objectives (SELN 2006). Abiding by SELN’s definition of extension, “the process of enabling change in individuals, communities and industries involved in the primary industry sector and with natural resource management”, this necessarily includes enabling change within NRM institutions. The proposition made by this thesis is that the application of extension models such as triple-loop-negotiation is useful for organising, facilitating and enabling effective outcomes from institutional NRM negotiations. Naturally, this would require specialist support from extension practitioners experienced in facilitating and supporting multi-stakeholder processes.

11.2 Closing the circle on theory

11.2.1 Reflexive and adaptive negotiation approach

A significant outcome from this research is the development of a normative model to aid understanding, organisation and facilitation of multi-stakeholder processes, particularly those aiming to negotiate complex intractable issues that deal with differences in perspective rather than divergences in tenets of law. The triple-loop-negotiation model is particularly suited to deliberations over the issue of extension policy, a ‘wicked problem’, with multiple stakeholders each with unique perspectives or paradigms concerning role of this policy instrument. An important feature of multi-stakeholder processes concerning extension policy is that no sphere or nested system within the national extension and capacity building system is all powerful, yet each is capable of subverting actions of other spheres. Therefore, subsidiarity is a critical concern where the design of extension programs for achieving desired agricultural or NRM outcomes requires adaptive and reflexive negotiation across industries, NRM bodies and government. Also important for achieving successful collective outcomes
with extension policy is the recognition by extension stakeholders that institutional processes are cyclic requiring drive and (self)organisation from within the discipline (autopoiesis), an integrated force amongst nested subsystems that brings the memetics-constructivism dialectic alive, thereby improving extension system health. The role of the triple-loop-agreement model developed in this research for aiding understanding, organisation and facilitation of multi-stakeholder negotiations is expanded in Appendix 2 using the SELN group as an example.

11.2.2 The triple-loop-agreement model
Following grounded development over a series of research episodes, including iterative exploration of literature, I have advanced an inquiry based process management model that provides a conceptual framework for describing, analysing and assisting the facilitation of multi-stakeholder negotiation processes. The grounded development of this theory saw an ongoing and longer-term interplay between the development of data within seven research episodes investigating aspects of NRM extension practice and policy (in Chapters 3, 5, 7, 9 and 10) the analysis of this data and reflection against relevant literature (in Chapters 4, 6 and 8). The grounded theory and conceptual model developed inductively (a posteriori) in this thesis has been progressed, applied and tested within extension policy projects that I was participating in, leading and/or facilitating within the Queensland Government and then at the national extension system within Australia between 1999 and 2009. The model at the centre of this research has progressed as an epistemological approach that guides inquiry into the realities of multiple (organisational) stakeholders with divergent agendas and seeks agreement through reflexive social learning processes. While the initial development of the model targeted the investigation of a dialectic between the memes exchanged in deliberations where there are differences of opinion, and how different parties construct their understandings of the ‘conflict’ (Chapters 2, 3 and 5), attention turned to consider the organisational change and adaptive management aspects of such deliberations and the characteristics of self-managing (autopoietic) groups that were trying to facilitate negotiated outcomes (Chapter 7). In response to emergent questions a triple-loop-negotiation model was proposed based on the literature (Chapter 8) and this was tested as an explicit (Chapter 9) then indirect (Chapter 10) guide for facilitating and analysing multi-stakeholder processes. Only in the very latter stages of this investigation is the realisation that explicit use of negotiation language and concepts is problematic to enabling deliberations and negotiations over points of difference and conflict, to actually take place. It is proposed that a more amenable language and conceptual entry-point for facilitating and analysing multi-stakeholder processes is through ‘seeking agreement’, thus the terminology used in the triple-loop-negotiation model shifts slightly to that of triple-loop-agreement.

The Triple-Loop-Agreement model (Figure 11.1) consists of the following elements:

a. Process drivers:
   - Identify and target stakeholder enthusiasms
   - Identify effective networking and participatory engagement methods
   - Mobilise creativity and innovation

b. Core negotiation mechanisms:
   - Encourage stakeholders to agree on how they ‘want to agree’
   - Consider interactions from three positions: Single, Double, Triple Loop
   - Support stakeholders to undertake frame-analysis with different opposing parties to improve understanding of the conflict
- Enable social learning through actively exploring different perspectives and reframing interpretations of future actions needed for achieving desired outcomes (e.g. sustainable NRM)

The model is represented differently here (Figure 11.1) to earlier versions (e.g. Figure 8.12) and has been adapted in response to feedback from research participants and analysis of episodes, particularly Chapters 9 and 10. It is important to understand that while the language has changed from ‘negotiation’ to ‘agreement’, the underlying premise of the model is for understanding, analysing and guiding multi-stakeholder deliberations and negotiation processes. Greater distinction has been made between each agreement loop, with the prevailing characteristics within each loop being included in the figure. The model has been depicted in Figure 11.1 as a distributed three-way option approach indicating that at any point in time, or with any particular issue, the group(s) involved in negotiations and seeking agreement can revert to any of the three loops. The model has been depicted in Figure 11.2 as concentric ellipses in effort to illustrate the nested nature of the theoretical variables within the triple-loop-agreement model. The model as depicted in Appendix 3 illustrates triple-loop-agreement as concentric ellipses in effort to illustrate the nested nature of each progressive loop, with the 3rd loop containing all the attributes of the 2nd and 1st loops.

I have developed triple-loop-agreement as an approach for identifying and building on the enthusiasms driving different stakeholders as a point-of-entry to influencing the resolution of wicked problems and complex intractable issues. Please see Appendix 2 for a generic rationale for SELN’s internal and external interactions based on the group’s established business strategy and communication plan. The example outlined in Appendix 2 may be adapted for designing the preferred future in SELN’s project with the RD&E review (Chapter 10).

11.2.3 Critical Reflections on Espoused-Theory and Theory-In-Use
Debatably, the tension between triple-loop-negotiation as my espoused-theory, and the ‘theory-in-use’ of myself and various other participants, particularly in the last episode (Chapter 10), created a dissonance that was not explored in any detail and certainly never resolved through the latter phases of this research. While I increasingly equipped myself with new knowledge and built my theoretical framework with negotiation concepts and language, at no point did I feel it appropriate to facilitate triple-loop-negotiation processes with SELN in an overt and explicit manner. I briefed a small number of key individuals from Chapters 9 and 10 about the advantages in taking a reflexive approach to proactively designing and operationalising negotiation processes to achieve agreed outcomes, however I did not attempt to discuss the finer details of triple-loop-negotiation. Despite my confidence in the virtues of the model, my apprehensions for presenting it comprehensively to the working group in Chapter 9 or SELN in Chapter 10 were borne from my fear of failure which was based on feedback, as well as an intuitive sense, that people were not yet ready to embrace a reflexive negotiation approach. Early in the development and design of the National Extension Policy Forum, when I discussed my negotiation approach with Jeff Coutts (Figure 9.2), he seemed quite eager to trial it and we drew up a negotiation plan. After submitting this to people like Andrew Campbell however, who admonished that it had “no hope” of influencing extension policy, I became less confident in peoples’ willingness to be involved wittingly in negotiation processes. I was concerned that my espoused-theory would not transpire to being the theory-in-use of the collective.
Interestingly though, in the latter stages of Chapter 9 when I briefly sketched out the model (Figure 8.12) and the working group scoped out major considerations for influencing extension policy, people were happy to collect their thoughts around the key components of a triple-loop-negotiation approach. Participants within the working group had little issue with the negotiation principles that were used, even if they had reservations with the language and terminology. Arguably, they were a captured audience, a group that had worked with me for some months. However, given the level of familiarity and trust within the group, if they were in disagreement with my espoused-theory, or my theory-in use, they would certainly have expressed it. Mostly, I was satisfied that the working group had begun to ‘negotiate how it was going to negotiate’ by virtue of their actions, however I was dissatisfied with the aversion members had for self-acknowledgement that they were ‘negotiating’.

A key issue here was the quantum of effort that it took to develop relationships within the group and the reach a level of trust where such concepts as triple-loop-negotiation could be considered. By contrast, while the level of relationships and trust within the SELN group was very high in Chapter 10, at no point did I feel completely comfortable in presenting my espoused-theory of triple-loop-negotiation. Despite not presenting the model, I based my interactions with SELN on triple-loop-negotiation principles. Through time I became increasingly satisfied that the theories-in-use within SELN were indeed quite aligned with triple-loop-negotiation, in large part arguably, due to their homogeneous nature.

Key learnings from this include that possibility that I was overly persistent with the use of negotiation language in my own espoused-theory, which in turn made it problematic for people I was interacting with to embrace triple-loop-negotiation as this language was misaligned with the language (or memes) they wished to use. Therefore there is a lot of evidence in this research that triple-loop-negotiation as a meme and will not have strong replication power nor will it be readily operationalised as a theory-in-use. Based in this learning, I propose that ‘negotiation’ be replaced with ‘agreement’. This takes the focus off potentially threatening issues such as dealing with and negotiating amongst conflicting points of view, and places it on the future desirable end point of agreement. This also aligns strongly with the findings in Chapter 7 (see Section 7.1) where scenario planning was able to reframe potential adversaries’ concerns of current conflict and focus attention on agreement for desirable futures.

### 11.2.4 Further theoretical development

Further effort is needed for the incorporation of the power dimension within multi-stakeholder negotiations using the triple-loop-agreement approach, particularly at higher levels of Australian and State governments and industry. Currently, while power is included as a particular frame within the ‘Framing and Re-Framing Dialectic’ outlined above, experience has been limited regarding SELN interacting directly within collective processes involving the higher executive staff, e.g. the NRMCC, PIMC and CoAG. Stakeholders possess and sometimes allude to or express their power frames, however that does not mean that power has been effectively included as a key component of the triple-loop-agreement model. Further consideration is required into the role power plays within a group preparing for interactions with other groups in order to influence an outcome. Or indeed, the role that power plays in how this initiating group interacts with other stakeholders and groups within the arena they are attempting to influence.
Figure 11.1: A distributed triple-loop-agreement model to aid the design of reflexive multi-party NRM negotiation processes. Normative negotiation strategies are included at each level.
Triple-Loop-Negotiation: Nested spheres of action
1. Action Science as the broadest category in which collaboration is required for reflexivity and negotiating the negotiation process
2. Social Learning is the next nested system in which networking is required for learning and reframing to occur
3. Framing Conflict is an inner nested system in which enthusiasm and creativity at the individual level are required before learning and reframing are possible
4. The issue at stake is the innermost nested system

The green labels show what participants ‘do’ and the black show the ‘ideal outcomes’ of negotiation within these nested spheres.

Figure 11.2: Theoretical variables in the triple-loop-agreement model presented in a nested figure (to clarify the relationships between these variables).
A quest within this research was to identify the dialectic relationship between memetics and constructivism within extension hermeneutic arenas. Certainly, at the close of the 1990s and start of the new millennium saw the progressive weakening of the extension meme’s capacity to replicate within rural and regional Australia. Concomitantly, the conventions, human perceptions, and social experiences of the majority of stakeholders clearly reflected that the constructed reality of extension was rarely a positive one. Surprisingly, early research findings indicated that the arenas I was exploring needed to be scaled up to higher aggregations (e.g. state or national) in order to identify where fundamental limitations and bottlenecks that were restricting a positive relationship existed. Hopefully, through this research journey and the progression of national dialogue around extension policy in national events and the instigation of SELN, I have moved some way toward positively influencing the relationship between the replicating power of the extension meme and how different people construct understandings of extension. As SELN’s activities continue and RD&E review negotiations progress, further research needs to be conducted regarding the ‘memetics-constructivism dialectic’ and how this dynamic relationship may be further exploited by SELN and others to improve the effectiveness of extension. Specific suggestions include rigorous inquiry into other memes that are overlapping that of extension (e.g. capacity building, community engagement, facilitation, citizen science, community development, compliance) and investigation of the types of people engaged in these memes to identify the key epistemic and practical rationalities (Steup 2010) that underpin the way they construct their understanding of these memes.

11.2.5 Considering extension policy in Australia in the context of wider international debates about extension

Following an in-depth investigation of extension policy pathways and implications in the Australian context, it is important to consider how the Australian experience sits in the wider international landscape of debates about extension. As one may expect, there is little dialogue specifically about extension policy, but there are some writings relevant to debates about the possible future of extension. It appears that such debates are centred around two prevailing positions. Different sides of the debate are concerned with rethinking the praxis of extension, but one side of the debate seeks to abandon the term extension, complete with its baggage, while the other aims to reclaim it.

One position moves to relegate the term extension (the extension meme), to a place in history within the province of Government agencies, and to rethink the role of extension while embracing new terms to replace it (Leeuwis 2004, Klerkx 2008, Klerkx, Hall and Leeuwis 2009). This position may be labelled as revolutionary as it reconceptualises the theoretical foundations of extension and realigns its mission to ‘communication for innovation’ (Leeuwis 2004:26) in effort to modernise extension and move away from significant challenges extension is facing (see Section 2.2.1 and Leeuwis 2004). Following this reasoning Klerkx, Hall and Leeuwis (2009) propose to use the term ‘innovation intermediaries’ or ‘innovation brokers’ whose main purpose is to facilitate multi-stakeholder interaction and build effective linkages within innovation systems. Howells coined the term ‘innovation intermediary’, defined as: “an organisation or body that acts as an agent or broker in any aspect of the innovation process between two or more parties. Such intermediary activities include: helping to provide information about potential collaborators; brokering a transaction between two or more parties; acting as a mediator, or go-between; bodies or organisations that are already collaborating; and helping find advice, funding and support for the innovation outcomes of such collaborations.” (Howells 2006, 720 in Klerkx, Hall and Leeuwis 2009). An important consideration is the recognition of the ‘function ambiguity’ “of characterizing innovation
intermediation as a function or as an organization” (Klerkx 2008:161). In this light the innovation intermediary term resonates very strongly with the extension methods included within the SELN extension statement, as ratified by State Governments around Australia in 2006 (see Appendix 1 and Vanclay and Leach 2010). In particular, the Multi-stakeholder Negotiation and Institutional Development methods align strongly with the notions of intermediary organisations which fulfil boundary work such as ‘bridging’, ‘bonding’ and ‘linking’ social capital and bring partners together, motivate them, provide information, and organise space for negotiations (Klerkx, Hall and Leeuwis 2009). Based on this research, a possibility for innovation brokers (within intermediary organisations) is to consider effective mixes of policy instruments (see forum outputs Section 9.1.4 and Appendix 1 Section 2.) for enabling innovative solutions to resolve problematic situations impacting different NRM and/or agricultural stakeholders.

As one would expect, Klerkx, Hall and Leeuwis (2009) observe that the effectiveness of mechanisms such as innovation brokers and intermediary organisations can only be properly understood in the context of the broader institutional and political circumstances they exist within. “The incorporation of innovation brokers into the overall agricultural innovation capacity of a country is truly dependent on a process of institutional and policy learning and this is likely to be a long-term process” (Klerkx, Hall and Leeuwis 2009:25). These authors question how “if effectiveness of brokering mechanisms is determined by institutional and policy learning at a macro-level, how can this be accelerated?” (Klerkx, Hall and Leeuwis 2009:26). It appears that, as with extension, brokering mechanisms such as innovation brokers and intermediary organisations require support within the (national) policy arena to gain legitimacy and commensurate funding as a policy instrument. This thesis has endeavoured to develop theory to address this very issue by taking an inductive approach with extension practitioners and stakeholders making efforts to influence, or accelerate extension policy.

A contrasting position in international debates about extension concerns the adaptive management and continuous improvement of the extension meme itself, as opposed to jettisoning the term and constructing an alternative label and revised epistemic approach. The ‘real-world’ view of extension argued by Bartlett (2010) is provocative with his overall suggestion that a lack of relevance and measured outcomes have come to plague effective policy support for modern-day extension programs. He outlines some inconvenient truths about extension including perspectives on extension organisations, extension and productivity, poverty alleviation and extension and markets the understanding around numerous claims advocating the benefits of extension, but little conclusive evidence. Unlike Saliu and Age (2009) who continue to argue for legislated privatisation within extension policy (in their case for the African context), Bartlett contends that the longer term experience has demonstrated ‘experiments’ with privatisation have not always gone well. Bartlett claims that if Governments are unwilling to provide greater funding for extension, it may be because policy makers are unconvinced about the impact of such investments (Bartlett 2010). The research in this thesis supports his key message that extension departments and stakeholders have repeatedly failed to convince policy makers that they are worthy of increased (Government) investment (see Figure 9.8 and Section 10.1.3). Bartlett’s position is that the normative view of extension needs to be reconstructed, constructed upward from grounded reality asking such basic questions as: do we need extension? Moreover, he believes this less idealised vision of extension consists of programs rather than organisations, as they require different indicators of success. The main argument is that empowerment is a better indicator than adoption of pre-specified packages of techniques and involves landholders becoming self-reliant decision-makers who can cope without the advice of an extension agent. Thus the
normative view of extension based on empowerment should be forward looking and action-oriented with an honest assessment of extension’s past history and experiences.

Röling (pers.comm.) and Jiggins (pers.comm.) frame extension in terms of the social narrative, relaying that extension (from their perspective) has long been attempting to balance the pre-eminent paradigms of economics, law and management. They claim that extension has endeavoured to include the social narrative in rural change processes. Extension’s quest has been focusing on the social aspects of change processes to help facilitate rural and regional stakeholder capacities to learn new ways of dealing with changing circumstances. Röling claims however that in many ways the extension model has failed to deliver on this. “Greg, extension is dead! All over the world it is suffering from reduced funding and political support. If extension is ever going to be meaningful it needs to use the narratives [languages] of these pre-eminent paradigms and actively inquire into how it [extension] can be of use to help facilitate change. These economic and legal paradigms cannot achieve sustainable outcomes by themselves. They need linkages to social processes to work. In sophisticated governance systems we need to know three languages – Law, Economics and ‘X’… The big challenge is ‘how do we invent the language of this 3rd paradigm together?’” (Röling pers.comm.). Or in other words, how do we enable various stakeholders to reframe extension to align with this ‘x factor’ void?

While it may be peculiar to Australia, there have been numerous attempts to review, redefine and reclaim extension during the time of this research (see Coutts et al. 2005, conferences of the Australasian Pacific Extension Network 2001-2010 and outputs from the Cooperative Venture for Capacity Building 2001-2008 that are in addition to the various activities in this thesis (Chapters 2, 3, 9, 10). Research commissioned by the CVCB into designing extension to deliver triple-bottom-line outcomes (of economic, environmental and socially sustainable practices at the local level) provided a good example of how practitioners and academics are endeavouring to influence extension policy through framing extension in quite similar ways to which Klerkx (2008) or Klerkx, Hall and Leeuwis (2009) frame innovation intermediaries. Beilin et al. (2007) maintain that discursive communities made up of different communities of practice, each with a stake in an NRM or agricultural issue are the most effective inter-organisational configuration to address the issue. As with innovation brokers, the role of extension is not to reduce or simplify the multi-stakeholder complexity, but to enable communities of practice to recognise and appreciate their differences in order to assume a common ‘orientation for action’ to achieve triple-bottom-line outcomes in their landscape(s).

The ongoing reclamation and redefinition of the extension meme in Australia increased significantly with the release of a nationally focused publication titled Shaping Change: Natural Resource Management, Agriculture and the Role of Extension (Jennings et al. 2010), with wide ranging contributions from thirty five leading practitioners in agricultural and nature resource management extension processes across the national extension system. These writings were intended as a catalyst to trigger a move to smarter innovation processes that integrate the elements of research, development and extension and define the role of the


133 The Cooperative Venture for Capacity Building (CVCB) was a partnership of 14 stakeholder organisations established in 2001 to enhance capacity building in Australia’s rural industries. Part of its charter was to review ‘What Works and Why?’ within current rural extension/education and training activities. See: https://rirdc.infoservices.com.au/collections/cvcb
extension community-of-practice (APEN 2011). Included are a wide array of perspectives on extension practice, economics and policy. The SELN statement on extension (Appendix 1) has been reproduced in the first chapter of the publication and some of the findings of this research, namely the application of triple-loop-negotiation to enabling extension policy, has been included in the final chapter. The book is largely focused towards extension practitioners and academics, and is possible that the messages within will strongly influence the memetics-constructivism dialectic occurring in this target audience. Given the fact that the book has recently been published, it appears that it may be an ideal time to introduce concepts such as ‘innovation intermediary’ or ‘innovation broker’ into the dialogue within the extension system in Australia. It will be important for groups such as APEN, SELN and other extension networks to consider such concepts for the next editions of this publication.

An interesting perspective, and one directly focussed on Australia, comes from a review by Pannel et al. (2006) of extension’s role within the RD&E continuum and the adoption of conservation practices by rural landholders. These authors suggest that policy makers “invest time and resources in attempting to ascertain whether an innovation is adoptable before proceeding with extension to promote its uptake” (Pannel et al. 2006:1420). This interdisciplinary study advocated that extension policy needs to be more focused on credibility, reliability, legitimacy, and the decision-making process itself. Also important was consideration that attributes of current NRM extension mitigating against the development of credibility include: short-term funding, rapid turnover of staff, the youthfulness and inexperience of many staff, and the lack of technical farming expertise of many staff. Similar issues are found in other international examples such as the Association of Public and Land-grant Universities in the United States, where the Leadership Advisory Council Extension Committee on Organization and Policy found the three major issues facing extension across America are:

1. How will Cooperative Extension be relevant to thrive and survive?
2. Cooperative Extension does not change easily.
3. Professional development in Cooperative Extension is an ongoing issue (Anon 2010).

As with Pannel et al. (2006), extension leaders in the United States identify that the need for change in the organisation and infrastructure of extension services, while it is slow to move, or slow to recognize the need for change, the relevance and legitimacy of extension as a leader of transformational learning in rural communities requires extension practitioners themselves to embrace these principles, improve the measurement of impact from extension and secure trans-disciplinary and flexible leadership and staff support. This appeal to improved change management and infrastructural support aligns directly with research in Chapters 9 and 10 and proposals for a National Extension Framework for Australia.

At the time of completing this thesis the Australian Government had recently updated Department of Agriculture Forestry and Fisheries information on the national Research, Development and Extension Framework (mentioned in Chapter10). The department clearly foreshadows the inclusion of extension as an interdependent instrument alongside research and development with the development of the framework overseeing this through a multi-stakeholder process including the Primary Industries Ministerial Council (PIMC), Primary Industry Standing Committee (PISC), PISC R&D Subcommittee, Council of Rural Research and Development Corporations’ Chairs, Australian Government and State and Territory Government agencies, the industry sector, Rural Research and Development Corporations, industry owned companies and the university sector (Australian Government 2011). The responsibilities and roles of each stakeholder group and the need to balance collaboration and competition amongst these groups were outlined by Bruce Kefford (Chair of the R,D&E
Review Committee) in the APEN annual General Meeting in November 2010 and then at the Australian Agricultural and Resource Economics national Conference in February 2011. While it appears that the Australian Government is committed to moving forward with the use of extension within primary industries sectors and has achieved some early outcomes in particular industries, it is envisaged that cross-sectoral issues such as climate change and NRM will be dealt with through review of the integration of extension policy with research, development through 2011-12 and beyond (Kefford 2011).

11.3 Key messages

The main messages about the institutionalisation of extension policy for NRM based on the results of research episodes and associated interactions are given below.

Extension in Queensland and across Australia is moribund and in disarray
Many managers and investors viewed extension as being ‘on its last legs’ and ‘on the way out’ as this form of service delivery has evolved slowly, arguably not keeping pace with the changing pressures and context of rural and regional Australia. The National Extension Policy Forum in Sydney in 2004 highlighted that communication, cooperation and collaboration amongst extension and capacity building stakeholders and service providers is indeed, an intractable wicked problem. A recommendation was made at this forum to develop and implement a National Extension Framework for Australia (NEFA) to address these issues.

The national roadmap for extension remains incomplete
The NEFA provided a chance to collectively negotiate and build a roadmap for extension policy in Australia. The NEFA would improve the communication, coordination and collaboration of effort to achieve sustainable outcomes protecting, maintaining and enhancing the landscapes, lifestyles and livelihoods of all Australians. This would be achieved through identifying improved cost-benefit ratios for using extension as a policy instrument in its own right, and also alongside other policy instruments. While other non-coercive instruments such as Market Based Instruments (Smyth et al. 2007), formal education and training, multi-stakeholder participatory processes, quality assurance processes, EMS and ecolabling (see Appendix 1), exist aiming to support change processes within Australia, the value in extension is that it provides an integrator, facilitator and support function for other policy instruments. A number of subsequent efforts following the 2004 National Extension Policy Forum were not able to secure an appropriate funding option for progressing the NEFA. This is surprising as the recommendation of the Standing Committee on Agriculture, Fisheries and Forestry in February 2007 was “that the Australian Government, in conjunction with State and Territory Governments and industry, develop a national extension framework to coordinate the provision of agriculture extension services nationally, and define the roles and responsibilities of governments, industry and extension providers.” (Commonwealth of Australia 2006). Also of concern is the fact that internationally it is well recognised that governments need to renew their vision of extension, to organize multi-sectoral agricultural and rural development extension providers, and to begin to develop a dialogue and cooperation with respect to these activities (Rivera and Qamar 2003).

Extension professionals find it challenging to design and implement multi-stakeholder processes that target improvements in extension policy
Many extension stakeholders have had an involvement in deciding upon the key elements of the roadmap (NEFA) during and subsequent to the 2004 National Extension Policy Forum.
These multi-stakeholder processes are challenging, and achieving robust outcomes can be difficult even with considerable planning by experienced extension professionals and academics. The aim of the proposed NEFA was to enable the development of effectively coordinated and sustainable extension policy and extension service delivery options for Australia. This multi-stakeholder process needs to involve members of the key nested systems concerned with building capacity for change through improved communication and information flow between industry, agency and community stakeholders and resilience in individuals and communities. Critical here are resources and mechanisms necessary for providing adequate time for interaction and network building, fundamental to enabling trust and feelings of interdependence to emerge from these networks. While SELN may be an example where the boundaries of a nested system within the wider system were established to improve leadership in extension, it is arguable that new boundaries need to be redrawn to identify who needs to be involved in an effective multi-stakeholder process to influence extension policy. Interdependence amongst agriculture, NRM, and community development stakeholders is imperative in a new nested system that can build on SELN’s achievements take on this role of influencing extension policy.

Triple-loop-negotiation is a useful model for enabling change in extension policy

Triple-loop-negotiation is a developing methodology for organising and facilitating multi-stakeholder extension policy (and other) processes. Episodes have shown that when members a group of stakeholders concerned about a common complex issue wish to converge upon a resolution, the group is well served by ‘negotiating how they might best negotiate’ within the group and with other stakeholders. The triple-loop-negotiation model was implemented as a conceptual framework for organising and facilitating the negotiation processes required at various levels and amongst nested systems within the Australian extension/capacity building system. While this model was developed to align with the epistemological preferences of extension stakeholders and practitioners, the language of negotiation, with its underlying connotations of conflict and struggle, proved to be problematic. In hindsight, it may have been much easier if the basis of the model had been coined as triple-loop-agreement, with a third loop imperative being ‘let’s reach agreement on how we are going to reach agreement’. In this way, participants in a multi-stakeholder process addressing issues such as extension policy, would arguably feel less confronted by the prospect of negotiating within a conflictual setting, while retaining an effective theoretical framework for inquiring into and contesting different stakeholder positions. Moreover, a triple-loop-agreement model would then be operationalised through the instigating group (i.e. SELN) seeking agreement, within the group and with other parties, on a set of principles that will assist reflexive decision making and advancement of agreement at the collective level. So the multi-stakeholder process is able to progress using an adaptive rather than a planned approach. The model resulting from this research is expanded below in Section 11.4.

The SELN nested system is influencing the movers and shakers in extension within Australia

The mission and purposes negotiated by SELN members in the first meeting suggest that at least part of the group’s mandate is the “provision of leadership and strategic direction in the development of State and National extension service delivery” (SELN 2005). Colloquially speaking, the group agreed that they would need “to influence ‘movers and shakers’ outside the group”. SELN progressed this intention significantly through instigating extension policy interactions and negotiations with PISC and the RDCs. SELN proposed negotiation projects aimed at ‘designing projects’ that include the essential ‘instruments’ required to achieve outcomes (as opposed to just outputs). Arguably, SELN did not progress the implementation
of these projects adequately and may have undermined its credibility and legitimacy somewhat because of this. Further association with PISC networks however and the RD&E review (see Section 10.1.8 and the SELN meeting at Busselton) has seen that SELN continues to be regarded as a significant stakeholder group. SELN has agreed that further to PISC and the RDCs, NRM is the next area to address and intends to interact with the NRM Steering Committee and the 56 regional NRM bodies throughout Australia and the levels of Industry and Government linked with the achievement of targets in NRM plans. Subsequently, SELN plans to bring these negotiations back to respective state and territory agencies to re-identify the states’ role in funding and delivering extension services. A significant learning is that development of effectively functioning groups and negotiation processes takes considerable time and seems to occur in an ‘unplanned’ rather than proactively planned manner.

**Considering extension as a policy instrument is valuable for developing extension policy**

In the past decade (2000-2010), managers and investors in public agencies have been increasingly seeking effective policy instruments, and combinations of policy instruments to achieve desired outcomes. SELN claims that extension is a strategic policy instrument for enabling profitable primary industry value chains and sustainable NRM throughout Australia in its own right, but also in conjunction with other policy instruments (SELN 2006). This description has been endorsed by each of the seven state and territory governments. Unfortunately, limited information is available that quantifies and evaluates the benefit-cost ratios attributable to the extension policy instrument. The acquisition of knowledge on the effectiveness of investments in extension is an urgent need for progressing negotiations with some stakeholders (e.g. DNR&M in Queensland).

**NRM extension models can have a different imperative to other forms of extension when seeking NRM specific outcomes**

Extension for enabling change in natural resource management has a somewhat different imperative to that of agricultural extension or extension for rural development. Arguably, each of these forms of extension is ultimately seeking enhanced landscapes, lifestyles and livelihoods for all Australians. While agricultural extension seeks sustainable primary production with a key focus on meeting the pecuniary interests of resource managers through chosen change, often NRM extension promotes unchosen change that may be at odds with financial or other interests of resource managers. NRM extension may therefore often be required to target NRM practice change that is against the will of many natural resource users and managers. Consequently, effective models for NRM extension require methods and skills for dealing with conflict. The contested institutional environment of NRM also needs extension tools with a much greater focus on the facilitation of institutional network building, learning and negotiation processes and the facilitation and support of multi-stakeholder negotiation in complex multiparty conflictual situations.

**Separating NRM extension from other forms of extension is problematic when seeking holistic outcomes**

As NRM is but one aspect contributing to the protection, maintenance and enhancement of landscapes, lifestyles and livelihoods for the benefit of all Australians in urban, rural and regional places” (Leach 2004), NRM extension is necessarily a subset (or highly interdependent nested system) within the wider extension/capacity building system. As a consequence, the institutionalisation of NRM extension in Queensland is framed within the general attributes of the larger national system. An analysis of the Australian NRM knowledge system (Campbell 2005, 2006) calls for a national extension framework to help organise and improve the purpose of this system. Campbell (2006) calls for a national
extension policy framework to instigate negotiations as high as the Council of Australian Governments (CoAG) to establish “agreement on respective roles, responsibilities and funding, firstly across the public/private divide, then across government, industry and NGOs, then across tiers of government. This will make a huge difference in the overall functioning of the NRM knowledge system in Australia” (Campbell 2006:28). This recommendation, while well-grounded with NRM knowledge systems and stakeholders, may risk limiting extension to a particular NRM domain when it is more inclusive to consider that extension’s purpose is to protect, maintain and enhance landscapes, lifestyles and livelihoods which extends beyond preservation of the natural resource base. Therefore, the NRM system may be best served by an overarching extension framework that incorporates federal, state and local government service delivery agencies, along with industry and private sector providers, but with a strong ‘focus on people’ that includes their relationship with natural resources along with other major life issues (such as health, education and crime).

The roadmap for NRM extension in Queensland is tattered and in disrepair

In Queensland, the role and function of NRM extension has floundered since 1999-2000 and has suffered from numerous institutional ‘blind spots’ ever since. The covert suppression of extension for NRM prevailed through the New Extension process (1999-2001), The ASAP Extension Review (2002-2003) and proposals to the DNR&M Service Delivery Board (2004). The role for extension in areas of awareness of DNR&M science and policy as well as enabling voluntary compliance with DNR&M legislation has been largely neglected. The RWUE and Land Protection programs continue to persevere with limited extension functions and some DNR&M regions appointing single extension officers in generic liaison roles. However, the state government has essentially passed extension service delivery functions to the 14 regional NRM bodies tasked with achieving targets in regional NRM plans. Partial ignorance of the role and function of extension for NRM in Queensland by senior executive, policy and research sections within DNR&M, and discontinuous delivery through regional NRM bodies has contributed to a lack of development of extension policy and practice for NRM by extension practitioners and academics. Generally, the inconsistency between what many NRM organisational staff at various levels say their perspective is and what they actually do leads to grave doubts about their capacities to effectively negotiate and back what they believe in, thus to a collective blind spot. It may be argued that saying is also doing, where if people say something they may actually be trying to negotiate a particular result (i.e. they are strategically framing something to achieve desired outcomes). However, numerous senior executive staff, while offering their individual support for the redesign of extension for NRM, have not acted on this in the company of their senior peers. They commonly perpetuate a collective ‘cover-up’, by not risking exposure of this blind spot. Their framing of extension in contacts with extension people and their framing of extension with their senior peers shows a clear separation between saying and doing. When confronted about this discrepancy, senior managers can become hostile and thwart the advancement of extension policy initiatives. Other staff deal with this blind spot through avoidance. Often I have been involved in discussions endeavouring to ‘talk around the elephant in the room’ with no-one prepared to talk directly about extension. The larger memes such as law (compliance) and economics (incentives) have prevailed while social memes (e.g. extension) have not.
11.4 Recommendations

11.4.1 Recommendations for institutionalising extension policy in Australia

The following recommendations draw directly from the above key messages. These recommendations are chronological steps for operationalising the interactions and negotiations needed to move toward national convergence on the role and function of extension policy, and specifically within Queensland, on the role and function of NRM extension policy. These recommendations progress from smaller achievable steps with existing nested systems through to ambitious systemic revolutions in the professional environment in which change practitioners deliver services in Australia.

Recommendation 1: Start Small: Present the Triple-Loop-Agreement Model and messages from NRM extension research to SELN

The above key messages from this research needs to be presented to SELN along with the triple-loop-agreement model with the aim of aiding the group’s aim to influence extension policy in Australia. SELN members can collectively decide on the degree to which they need to interact with stakeholders from other nested systems to achieve the purposes of the group. The core ethos of triple-loop-agreement, ‘agreeing how to agree’, provides that if SELN members collectively decide that they wish to develop ‘principles for reaching agreement’ amongst themselves for achieving outcomes with the RDCs, NRM regional bodies and other nested systems, they can use components of the triple-loop-agreement model, or alternate tools. For example, the proposed SELN project with the RD&E review will be framed much more strategically if relevant stakeholders are involved in agreeing on the design of processes to influence perspectives on extension. Moreover, when SELN interacts with NRM regional bodies and associated government agencies, triple-loop-agreement will enable strategic recruitment of NRM state government extension chiefs.

Recommendation 2: Establish the business case for the Extension Policy Instrument through a discrete funded project

SELN needs to secure funding to continue work already initiated including developing case studies in each state and territory, but place a specific emphasis on the outcomes and benefits achieved for the financial and human resources invested. A professionally prepared product that presents these case studies and an analysis of the extension policy instruments role and the benefit-cost attributed to extension within each case is required. A discretely funded project, administered by SELN will best achieve this. This analysis will assist stakeholders from economic, legal and management domains to reframe extension using language, memes and paradigms they are familiar with (e.g. economics and law). As SELN is a network, and not very well prepared to conduct projects, this project needs to be housed within an agreed organisation. A suitable location would be in a higher-order Australian Government office with a commissioned group such as PISC overseeing national policy direction in agriculture, or the Chair-of-Chairs which oversees coordination amongst research and development corporations.
Recommendation 3: SELN should commission a working group that is tasked to instigate deliberations amongst key nested systems within the wider Australian extension system

To move toward improving the communication, coordination and collaboration in the extension/capacity building system that achieves SELN’s purposes, members need to identify, contact and engage with stakeholders from other nested systems. Through seeking out individuals with enthusiasm for enabling change in rural and regional Australia, SELN members can participate with representatives from other nested systems to create new relationships and establish collective interpretations of the role and function of extension. This should involve a commissioned working group made up of SELN members in collaboration with stakeholders from primary production and NRM nested systems. An important conditionality on interactions with other stakeholders is the negotiation of funding arrangements and institutional support for participation in negotiations for a substantial time. While SELN may have limited initial seed funding to initiate wider multi-stakeholder processes, equitable contributions should be expected from participating organisations. An example of this working group may comprise representatives from SELN, rural industries, regional NRM bodies and RDCs. Endorsement is required through PIMC and NRMMC for developing a NEFA with the aims of enabling improved collaboration, coherency, correspondence and achievement of agreed outcomes for sustainable NRM and primary production. A core purpose for this group is to negotiate with the NRM and primary production ‘legal-administration systems’ and ‘economic-management systems’ how extension can help these stakeholders meet their needs. The triple-loop-agreement model can assist these inquiry and negotiation processes. The commissioned working group may learn from large scale negotiation models that worked effectively in previously successful multi-stakeholder policy processes including the ‘Landcare’ and ‘salinity and water quality’ movements over the last two decades. As with these movements, SELN needs to consider the effectiveness of securing participation of influential and high-profile stakeholders from diverse disciplinary, industry and socio-political domains (Gordon pers. comm.).

Recommendation 4: The working group needs to obtain endorsement from CoAG of an initiative to develop a wider National Extension Framework for Australia

The commissioned working group involved in development of the NEFA needs to present the policy outcomes of this initiative to CoAG\textsuperscript{134}. The group can present a proposal to continue the processes of inquiry and negotiation regarding how extension can help meet desired outcomes of the legal and economic drivers within other key socio-political domains such as health, community development, education and crime prevention. This proposal should contain recommended options for a multi-stakeholder process and organisation to progress this and achieve effectively negotiated outcomes, which in essence realises the subsidiarity principle while remaining aware that complex (organisational) negotiations are cyclic (e.g. Lazy-Eight Model) and require adaptive management. This proposal will be supported by the abovementioned recommendation of the Australian Federal Government in February 2007 for development of a national extension framework to coordinate extension services, and define stakeholder roles and responsibilities. (Commonwealth of Australia 2006).

\textsuperscript{134} Note: For a CoAG example of cooperative national approaches to policy development see Head (2007)
Recommendation 5: The Australian Government needs to oversee development of an Extension Innovation Intermediary Organisation to implement a CoAG NEFA agreement

The endorsement by CoAG of the development of an Extension Innovation Intermediary Organisation (following Klerkx 2008 and Klerkx, Hall and Leeuwis 2009) will enable the stakeholders involved with ‘enabling change with rural and regional people’ to establish institutional space for negotiation of improved linkages across service delivery domains. This organisation can implement the CoAG endorsed initiative using a triple-loop-agreement approach by ‘agreeing amongst partners how they want to agree’ and furthermore how they can enable effective collaboration. The opening of collaborative space will be essential for pooling of appreciations and/or tangible resources such as knowledge, skills, finances and networks amongst extension stakeholders to solve service delivery coordination problems that cannot be solved individually (as per Gray 1985). The Extension Innovation Intermediary Organisation (IIO) can learn from the successes and limitations of national programs such as NAPSWQ and NHT1, 2 and CFOC, to design a national devolved funding program for improvements in landscapes, lifestyles and livelihoods for all Australians through the effective delivery of extension and capacity building services. This national program should encourage collaboration and partnerships amongst government, industry and private sector investors and service providers. Furthermore, the program proposal should include consideration of the funds and resources required to establish sufficient infrastructure and support for ongoing research into extension and capacity building science and professional development of practitioners.

Recommendation 6: The Extension IIO should develop a National Action Agreement for Extension and Capacity Building

The Extension IIO can use a triple-loop-agreement approach for organising and coordinating the partnerships required amongst public, industry and private sector stakeholders to implement the NAAECB. Endorsement at high levels of Australian Government will need to include preferred funding and policy arrangements. The implementation of a national program with considerable profile and international visibility will help improve the relationship between the extension policy instrument with economic and legal instruments along with the range of other policy instruments, such as those outlined in the SELN discussion paper (SELN 2006).

It may be argued that these latter recommendations may be a little prescriptive and extending beyond the scope and epistemological position of this thesis. After all this research, complete with the adoption of an espoused-theory of triple-loop-agreement and reflexivity, am I still prescribing and directing actions? No. Recommendations 4, 5 and 6 are proposed here more as a provocation, with the aim of providing a possible way forward, based on numerous discussions with numerous people along this research journey (e.g. see Section 9.1.3), for groups such as SELN to influence improved extension policy in Australia.

11.4.2 Advice for institutionalising extension policy for NRM

Extension for NRM necessarily involves network building, learning and negotiation amongst numerous institutional stakeholders (following Leeuwis 2004). The following advice is framed within the larger extension and capacity building system. Improved higher-order institutional coordination and coherency is necessary for extension services targeting improved NRM practices to incorporate NRM decision-making alongside common life dilemmas such as health, education and crime.
1. **In Australia** – Building on the above recommendations, NRM extension should be a discrete nested system that is coordinated with other nested systems under the NEFA. The national NRM extension system will have its own particular policy platform situated within the Australian government NRM Team, state and territory government NRM agencies, regional NRM bodies, Catchment Management Authorities (CMAs) and State Joint Steering Committees (JSCs) linking the states with federal government and regional bodies, along with other key stakeholder groups highlighted in the NRM knowledge system proposed by Campbell (2006). It is crucial, however, that NRM extension policy is not positioned separately amongst NRM institutional networks, but is fundamentally linked to extension and capacity building policies possessed by other nested systems within the NEFA.

2. **In Queensland** – Following the above, NRM extension in Queensland may be best served through incorporation with programs and initiatives that serve the interests of citizens’ relationships with fundamental life issues such as health, education and crime. NRM extension needs to help relate natural resource management needs with these higher profile social concerns. For example, the 2006 state government election in Queensland was decided on the primary issues of health and water (ABC 2006). These issues obviously concern the majority of Queensland citizens. Research in Australia’s coastal zone also identified that human health impacts were the most frequently mentioned social issues associated with natural resource management (Lockie and Rockloff 2005). Therefore, the incorporation of stakeholders from areas such as: health promotion (Queensland Government 2006b), regional development (see Young et al. 2005); education (e.g. Queensland Environmentally Sustainable Schools Initiative); crime (Queensland Government 2002) and regional development issues (Queensland Government 2006c, Queensland Government et al. 2006d) will help ground NRM extension/capacity building policy within the more pressing needs facing Queensland citizens. While the statutory model has been followed in most states in Australia for influencing NRM practices with designated roles of stakeholder agencies clearly spelled out in formal agreements and statutory plans, Queensland’s chosen route to influencing NRM practice change uses a combination of state regulatory instruments alongside non-statutory regional NRM plans and institutional arrangements. Queensland’s regional NRM plans, along with development processes, such as under the SEQ Regional Plan, do not commit any government, industry or community organisation to implement, fund or otherwise resource programs (Queensland Government et al. 2006). Under the Queensland non-statutory NRM model there is a high need for extension models that enable: the facilitation of network building, learning and negotiation processes with specific institutional stakeholders, programs and networks, and; facilitation and support of multi-stakeholder negotiation in complex multi-party situations (e.g. with public good NRM issues). This will help balance non-coercive with coercive policy instruments.

Considering extension more broadly, in order to practice what it preaches and attain the status of being a critically-reflective, truly reflexive and continuously improving discipline, it is essential that the purpose of extension, ‘enabling change’, is also focussed on the very institutions and organisations that employ the extension policy instrument to help achieve their ends. Authors such as Röling (1988), van den Ban (1996), Leeuwis (2004), and others document extension theory and practice as a product of their respective times. Extension is broadly focussed and applied to thinking about and enabling practice change within rural social systems. Few authors, however, articulate strongly the key tools for effectively ‘institutionalising’ extension through enabling change in the policy environment. Rather than progressing a self-serving agenda (a concern of some extension critics), extension theory and
stakeholders need to also target autopoiesis in the policy development processes and multi-stakeholder institutional environment within which policy instruments are developed and delivered.

In this context the ‘autopoiesis’ extension stakeholders may target refers to operationalising reflexive self-organised nested systems of policy stakeholders that balance their internal coherency and self-referentiality with the capacity to correspond with, learn from, respond to and play an active part in influencing the wider system of policy instruments for achieving desired objectives with natural resource management and in the primary industry sector. To facilitate such autopoiesis in the NRM sector (see Section 6.5 for further detail), extension needs to provide models of operation and tools that enable effective interaction, negotiation and ultimately collaboration to occur within the institutional networks containing stakeholder agencies, bodies, community groups and commercial interests that are each attempting to contribute to achieving sustainability. An important realisation is that stakeholders targeting sustainable NRM are but one nested system within a wider set of social and economic sustainability issues. Ultimately, the way forward will require collaboration amongst the legal, economic and social narratives (mentioned above). Contracted by CHASS\textsuperscript{135}, Metcalfe et al. (2006) considered that the “world is turning to multi-disciplinary collaborations to deal with the big issues we face, critical problems such as water shortages, global climate change and threats to national security, human health and economic sustainability. No single discipline has all the answers” (Metcalfe et al. 2006:7). From their research into ‘cross-sectoral collaborations’, which combine the humanities, arts and social sciences with science, technology, engineering and medicine, they make the following recommendations for enabling effective collaboration which I consider to be applicable for extension and the outcomes of my research:

1. Promote a new mindset – Removing impediments and providing incentives for exploring the power of cross-sectoral collaborations to deal with problems
2. Change research behaviour – Removing institutional barriers at the organisational and disciplinary levels relating to power, resource and status distribution among the different sectors that impede cross-sectoral collaborative research
3. Educate for greater collaboration – Improving understanding and appreciation of other disciplines and sectors and the development of relationships at secondary and tertiary levels of education
4. Train ‘boundary spanners’\textsuperscript{136} – Enabling understanding across sector and discipline boundaries with trained ‘boundary spanners’ improving communication amongst differing disciplinary languages, research approaches and cultures.
5. Coordinate and advocate cross-sectoral collaboration – Developing an Australian Institute for Collaboration [centre of excellence] to support cross-sectoral alliances

As with the Engaged Government Project, CHASS is in search of ‘boundary spanners’ and the tools to enable effective collaboration. I would suggest that in the NRM sector at least, the extension discipline has the capacity and theory to fulfil the ‘boundary spanner’ role. New models of extension are relevant for enabling cross-agency and cross-sectoral collaboration (e.g. the triple-loop-agreement approach). In this thesis and the SELN discussion document, I

\textsuperscript{135} The Council for the Humanities, Arts and Social Sciences (CHASS) was established in 2004 as a peak representative body for the humanities, arts and social sciences sector in Australia. In December 2005 CHASS commissioned research into collaborating across sectors in Australia

\textsuperscript{136} Key agents managing within inter-organisational theatres (after Williams 2002). Note: The literature relating to boundary spanners relates strongly to the Multi-stakeholder Negotiation and Institutional Development extension models
suggested two extra extension models to the five models identified by Coutts et al. (2005) and Coutts and Roberts (2003). The models I suggested, largely based on this PhD research process, are:

- **Multi-stakeholder Negotiation** – supports collective decision-making in complex multiparty situations (e.g. in public good issues) using facilitation approaches that build on the enthusiasm of participants, target creativity and innovation as well as enabling effective participation of interested parties.

- **Institutional Development** – supports the facilitation of network building, learning and negotiation processes within and amongst institutional stakeholders, programs and networks” (SELN 2006:6).

These models require further grounding within multi-stakeholder institutional and organisational settings and documentation within a peer-reviewed process before they may be considered as accepted extension models in the Australian context.

### 11.4.3 Concluding statement

Natural Resource Management is a contested human endeavour. Conflicting objectives, values, beliefs and interpretation frames make NRM a wicked and disputed space in which divergences abound amongst landholder, representative, institutional, organisational and governance networks. My argument in this thesis is that for NRM, the extension policy instrument is a multi-stakeholder apparatus for use in its own right, and in conjunction with other policy instruments to resolve these wicked multi-stakeholder problems.

Ironically, the negotiation of NRM extension policy in Queensland and Australia (and internationally) requires effective multi-stakeholder engagement, negotiation and agreement to advance coherent policies that correspond with the needs of sustainable NRM. As a public good outcome, one might expect that government would have advanced such deliberations about extension policy for NRM. It appears however that, in Queensland at least, moves to secure practice change through regulation have seen a strong push toward employing legal policy instruments. It seems that the extension policy instrument, extension practitioners, and their associated body of knowledge have been pushed to the side in deliberations about an effective policy instrument mix for enabling sustainable NRM practices. My advice through this research is that extension has value as a policy instrument however extension policy negotiations need to be driven by extension practitioners themselves.

This research demonstrates that extension practitioners and stakeholders can come together into groups to influence both extension as a practice and the policy environment in which extension is positioned. These groups can act as reflexive self-organised nested systems that instigate and guide multi-stakeholder engagement, negotiation and agreement within the wider system of policy instruments for achieving desired objectives with NRM and primary industries. The thesis shows that the design and conduct of these interactive activities can be informed and guided by a theoretical framework founded on negotiation concepts and theory. The grounded theory developed through five research episodes with extension stakeholders in Queensland, and two at the national Australian level, is included within a triple-loop-agreement model which is ultimately addressing a fundamental issue within multi-stakeholder processes, ‘agreeing how to agree’. Applying this developing triple-loop-agreement approach has demonstrated that it can be effective to facilitate the achievement of effective solutions in complex multi-stakeholder negotiation processes through enabling emergence of the dialectic.

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137 The five models are: Group Facilitation/Empowerment; Programmed Learning; Participatory Technology Development; Information Development and Access, and; Individual Consultant/Mentor
relationship between how people construct their understandings of an issue and the memes they use to do so, rather than forcing adoption of a ‘right way’ to negotiate and agree on an issue. The negotiation process itself is up for negotiation and the key components of the triple-loop-agreement model preferred by a group may in fact be different to those included in Chapter 8. A key proposal from this thesis is that extension practitioners can broaden their practice base through applying additional Multi-stakeholder Negotiation and Institutional Development models for dealing with complex issues, and in a reflexive manner apply such models to influence the policy environment extension exists within.

My parting argument is that Extension needs to take its rightful place as a discipline enabling change through ‘spanning the boundaries’ of the traditional human narratives of economics, law, management and science. In order to achieve resilient outcomes, extension needs to factor NRM considerations concurrently with economic, social, legal and scientific aspects of the human experience. For NRM in Australia, extension’s key role is to influence reflexive inter-stakeholder network building, learning and negotiations that are inclusive of these traditional narratives.

Extension, thus, has a role in facilitating and enabling subsidiarity and truly reflexive decision-making in (Australian) multi-stakeholder and inter-organisational governance systems. Leading on from this, adaptive and reflexive triple-loop-agreement principles are central to designing, facilitating and operationalising the reflexive multi-stakeholder processes required to make democratic decisions about NRM and sustain our existence in this country, and indeed the world.
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Appendices

Appendix 1

SELN Discussion Document

SELN, 2006. Enabling change in rural and regional Australia: The role of extension in achieving sustainable and productive futures, Discussion Document State Extension Leaders Network

www.seln.org.au
Enabling change in rural and regional Australia:

The role of extension in achieving sustainable and productive futures

A discussion document produced by the State Extension Leaders Network

August 2006
Purpose of this Discussion Document

The purpose of this discussion document is to establish a common understanding of extension nationally in order to assist in creating world-class, competitive primary industries and in achieving sustainable natural resource management.

State Extension Leaders Network

The State Extension Leaders Network is a gathering of Government extension leaders and influencers from each State and Territory of Australia. SELN strives to provide leadership and strategic direction in the development of State and National extension service delivery.

In the short term, SELN aims to connect with rural and regional stakeholders across Australia to:

- clarify the purpose and role of the extension policy instrument, both in its own right and within policy instrument mixes;
- instigate efforts to improve communication, cooperation and collaboration across extension service providers;
- encourage key stakeholders to reassess the role of extension policy and extension services, and;
- progress the development of a national coordinated approach for extension.

SELN further sees that its role in progressing these initiatives is to instigate and facilitate interactions with State and Territory Governments, Industry Bodies, Research and Development Corporations, the Cooperative Venture for Capacity Building, rural industries and the Ministerial Advisory Committees for primary industries and natural resources. SELN also works with the Australasia-Pacific Extension Network (APEN), a professional association for extension practitioners.

SELN Membership

- Regina Fogarty – Department of Primary Industries, New South Wales
- Greg Owens – Department of Primary Industry, Fisheries & Mines, Northern Territory
- Gus Hamilton – Department of Primary Industries & Fisheries, Queensland
- John James – Department of Primary Industries & Fisheries, Queensland
- Greg Leach – Department of Natural Resources, Mines & Water, Queensland
- Locky McLaren – Rural Solutions South Australia
- Robin Thompson – Department of Primary Industries and Water, Tasmania
- Carolyn Cameron – Department of Primary Industries, Victoria
- Peter Metcalfe – Western Australia Department of Agriculture
- Neale Price – Australasia-Pacific Extension Network (President)
- Prof Frank Vanclay – Tasmanian Institute of Agricultural Research, University of Tasmania
1. **Policy instruments available to pave the way to sustainability and productivity**

Extension is the process of enabling change in individuals, communities and industries involved in the primary industry sector and with natural resource management.

As a process of bringing about change, extension is a strategic policy instrument for enabling profitable primary industry value chains and sustainable natural resource management (NRM) across Australia. Extension is useful in its own right, but also has a vital role to play in conjunction with other policy instruments for achieving desired objectives.

Extension may well be a necessary precondition for the effectiveness of many instruments. In times of discontinuous change, it is important to continually review the use of policy instruments and their combinations to facilitate effective change in urban, regional and rural communities.

A sustainable productive future is heavily reliant on improved community capacity building, new ways of interaction, and more efficient use of resources. The pressures on the primary industries sector to implement profitable production systems continue to increase.

Urban demands on Australian landscapes are escalating. While many social and economic indicators are improving for most Australians, there is substantial evidence of declining social, economic and natural capital in rural areas.

Our resource management practices must change if we are to achieve sustainable landscapes, livelihoods, and lifestyles. The needed changes will not take place on their own. Intervention is required to facilitate and shape the practice changes required to achieve the desired on-ground outcomes.

A range of strategies (policy instruments) can be developed and implemented to influence and accelerate these changes.

The selection of effective policy instruments and the appropriate mix of instruments are crucial for achieving desired outcomes. There is a real opportunity to recognise and use extension in conjunction with other policy instruments to optimise their inherent potential to meet desired outcomes.

Extension differs from PR and marketing in that it uses a wider range of methods, has a different theoretical base, and responds to stakeholders’ needs at all stages of the adoption process (i.e. not just awareness-raising). It differs from education and training by facilitating the social interactions critical for progressing learning and negotiation through to practice change.

Suasion is one of the methods used by extension, but extension often shows that new technologies or practices are in the potential adopters’ best interests. Extension and capacity building are highly interconnected, with capacity building being an important component of extension activities.

**Policy instrument:** a method or mechanism used by government, government agencies as well as other institutions including business to achieve a desired effect.
2. Extension has a new meaning

Extension is the process of enabling change in individuals, communities and industries involved with primary industries and natural resource management (NRM). Extension is concerned with building capacity for change through improved communication and information flow between industry, agency and community stakeholders. Extension seeks outcomes of building capacity and resilience in individuals and communities. Extension contributes to protecting, maintaining and enhancing the landscapes, livelihoods and lifestyles of all Australians.

Extension is a significant activity across Australia in both the public and private sectors, and involves thousands of extension practitioners who reach out to all landholders and community members. Extension seeks both public good and private good outcomes. The service delivery base has transformed over the last two decades becoming more diverse with private industry playing an increased role.

The achievement of public benefit outcomes is the responsibility of government. Therefore, public extension service delivery largely targets the sustainability aspects of production and NRM. While the Commonwealth and State Governments have remained significant players, industry programs, regional NRM bodies, and private practitioners have taken an increased role in working with individual producers and natural resource managers:

- Private benefits such as increased profitability and competitive industries are increasingly targeted by private sector providers;
- Private sector extension providers are also available to deliver public sector programs under contract;
- Not-for-profit organizations, such as Greening Australia and regional NRM bodies, are increasingly undertaking extension services, and;
- Public sector agencies are also providing some services on a competitive basis with private deliverers.

It is clear that as the relationship between society and natural resources has broadened to focus on issues of sustainability, and as knowledge of the ways to influence people has increased, we need to rethink and adapt our ideas about the role and meaning of ‘extension’.
### Policy instruments for supporting change

<p>| 1. Regulation, Enforcement and Compliance | Statutes, laws and regulations provide institutional guidelines and specify agency responsibilities for enforcing minimum standards, prohibiting certain practices and regulating resource use in policy areas such as land use planning, vegetation management, water allocation and development control. Enforcement and compliance of regulatory frameworks facilitate changed practices. A major risk is that 'command and control' approaches limit effectiveness in achieving more than minimum standards. |
| 2. Direct Investment | Sometimes when specific on-ground outcomes are desired, the most effective mechanism is direct investment – to employ a contractor to deliver a specified outcome. |
| 3. Covenants and MoUs | Voluntary but official agreements and contracts for performance of a particular activity can support change processes. Examples include conservation agreements tied to property title. |
| 4. Common Law, Duty of Care, Stewardship | Common Law refers to a system of law based on custom and general social principles that are embodied in centuries of legal case history judgements. Common Law recognises social norms, community values and rights as key enablers of effective and sustainable practice. Within Common Law there are notions of a Duty of Care that each person has to ensure that they do not create harm. Potentially this Duty of Care extends to the environment. |
| 5. Formal Agreements | There are a variety of formal mechanisms that can be used between governments and other entities to facilitate action. Governments can commission regional NRM bodies, local government and/or NGOs to provide certain services or deliver certain outcomes. |
| 6. Research and Development | R&amp;D increases the stock of knowledge through basic and applied research. The implementation and adoption of R&amp;D outcomes contributes to practice change and the achievement of sustainable and productive outcomes. |
| 7. Monitoring, Evaluation, Benchmarking and Adaptive Management | All policy implementation needs monitoring and evaluation. While many NRM goals are specified, without monitoring progress towards these goals cannot be established. In many cases, especially with NRM issues, the baseline state of the issue being considered is unknown. Evaluation of methods used to create change is necessary to enable fine-tuning of the instruments through adaptive management. |
| 8. Assessment Procedures | Structured assessment procedures enable change. Procedures such as environmental impact assessment (EIA), social impact assessment (SIA), health impact assessment (HIA), strategic environmental assessment (SEA), lifecycle assessment (LCA), triple bottom line accounting (TBL) and sustainability assessment all have goals of improving environmental and social outcomes. By providing information about sources of harm, and opportunities for improvement, these procedures actively assist in bringing about sustainable development. |
| 9. Self-Regulation | Codes of practice, codes of ethics, professional standards are approaches that encourage stakeholders to change their own practices in order to meet commonly accepted standards of practice. The process of development of these codes, and awareness of them, leads to practice change. |
| 10. Quality Assurance processes, EMS and Ecolabling | Encouragement of the implementation of Quality Assurance processes (such as Environmental Management Systems and Farm Management Systems) creates change because it encourages continuous improvement, reflexive practice, monitoring and benchmarking against world's best practice. Ecolabeling is a market-based mechanism where the establishment of an ecolabel potentially provides competitive advantage to products produced under this label and compliance is created via the competitive advantage that exists. Ecolabeling is in effect a code of conduct that mandates the quality assurance of environmentally sound practices. |</p>
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<tbody>
<tr>
<td>11. Public Relations, Marketing and Advertising</td>
<td>The achievement of change can sometimes be facilitated by a public relations or marketing campaign utilising advertising. Awareness of an issue or of practical solutions is sometimes all that is required for change to occur.</td>
</tr>
<tr>
<td>12. Formal Education and Training</td>
<td>Public, targeted formal education and training programs enable instruction at a specified kind or level. The aim is to use education and training to improve knowledge and develop skills in a specific area as a means to enabling practice change and onground improvements.</td>
</tr>
<tr>
<td>13. Suasion</td>
<td>Suasion refers to appeal to the right thing to do. It refers to campaigns that urge action because of what ought to be done, what is socially or morally desirable.</td>
</tr>
<tr>
<td>14. Extension</td>
<td>Extension is the process of enabling change in individuals, communities and industries involved in the primary industry sector and with natural resource management. While extension seeks to improve communication and information flow between industry, agency and community stakeholders, it is primarily concerned with building capacity for change.</td>
</tr>
<tr>
<td>15. Participatory Approaches</td>
<td>Solving complex, unstructured problems requires inclusive institutions and participatory processes of mediation, negotiation, dispute resolution and other deliberative mechanisms with community and industry stakeholders. Participatory approaches contribute to collective ownership of an issue and to a willingness to take action and to change practice.</td>
</tr>
<tr>
<td>16. Market-based Mechanisms</td>
<td>Market-based mechanisms include a range of methods for encouraging change usually involving the assignment of property rights to goods that are not normally traded through a market.</td>
</tr>
<tr>
<td>17. Economic Incentives</td>
<td>Economic incentives refer to a range of financial inducements that attempt to change behaviour through monetary reward or penalty including: taxes on bad practices, use charges, tax deductions and/or rebates/credits, rate relief, subsidies and co-funding arrangements, and penalties for poor practice.</td>
</tr>
<tr>
<td>18. Conditionalities</td>
<td>Conditionalities refers to the conditions that can be imposed on a business in conjunction with the granting of a licence to operate. This may include stipulations on emission levels, offset compensation (such as vegetation regeneration in one area to compensate for clearing in another location), and/or performance bonds.</td>
</tr>
<tr>
<td>19. Institutional Arrangements</td>
<td>Responsive institutional environments are necessary for enabling other instruments, policies and management. The capacity of institutions to change is essential for improving inter-organisational outcomes.</td>
</tr>
<tr>
<td>20. Change other policies</td>
<td>Actions to influence and/or distort policies or statutory objects can induce change processes. Examples include: ineffective subsidies; conflicting policies; misplaced statutory objects.</td>
</tr>
<tr>
<td>21. Reasoned Inaction</td>
<td>Doing nothing is also an instrument for influencing change. Non-response is valid where justified by due consideration, eg. allowing market forces to prevail.</td>
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3. Methods of extension

Various definitions of ‘extension’ have been developed over the years, with each being a product of its time. Extension necessarily is a continuously evolving system of practice and theory. Extension models have shifted from methods of technology transfer of expert knowledge, to processes that support the co-creation of knowledge and the empowerment of stakeholders.

Current extension projects utilise a range of methods:

- **Group Facilitation/Empowerment** is the process of providing support for rural, regional and urban stakeholders to define problems and opportunities, and to seek avenues to address them.
- **Programmed Learning** recognises the knowledge already held by participants and encourages experiential learning as they engage with new information in a learning event.
- **Participatory Technology Development** supports participation and multiple stakeholder approaches for development of technologies.
- **Information Development and Access** supports decision-making processes through the provision of appropriate information at different stages in the decision making process in forms that suit individual needs.
- **Individual Consultant/Mentor** involves effective learning relationships between client and consultant to improve the skill base of the client, and to solve immediate practical problems.

In addition to these accepted approaches, further methods are developing:

- **Multi-stakeholder Negotiation** supports collective decision-making in complex multiparty situations (eg. in public good issues) using facilitation approaches that build on the enthusiasm of participants, target creativity and innovation as well as enabling effective participation of interested parties.
- **Institutional Development** supports the facilitation of network building, learning and negotiation processes within and amongst institutional stakeholders, programs and networks.

These different extension methods are complementary and all are necessary for effective capacity building. Extension is not just a matter of decisions about what is the best method, but rather what is the appropriate mix of methods to best achieve a particular purpose. The ability of these methods to achieve effective outcomes needs to be continually reassessed, improved and reinforced.

Although there is much extension activity being undertaken in Australia, capacities within the extension system are limited, and support for professional development is lacking. Extension practitioners require professional development support.
4. Extension adds value to investment

All policy instruments have a role to play in achieving desired outcomes efficiently and effectively. Extension is a crucial contributor to investments in rural, regional and urban development, providing a bridge between science, policy and community stakeholders to facilitate changed practice. Historically, ‘agricultural extension’ raised the awareness and in many cases transferred technologies and science from research institutions to rural clients.

Agricultural extension targeted the adoption of new technologies to achieve improved production efficiencies and rural development outcomes. More recently, the focus of extension has widened to include the challenges faced by all communities, including urban dwellers, land managers and primary producers as well as those faced by the very organisations that seek outcomes through investing in service delivery. This wider focus is essential for facilitating change in regional systems as well as addressing single issues.

Separating agricultural and other forms of extension in operation across Australia from other policy instruments is problematic. Extension projects cannot be considered in isolation from other interventions occurring in a community, industry or issue. Extension has been regarded for centuries as a policy instrument in its own right, however recent developments demonstrate that extension provides an integrator, facilitator and support function for other policy instruments.

The achievement of positive return on investment for each policy instrument depends on effective communication and information flow, and on the coordination and integration of associated intervention mechanisms. Further effort is needed to clarify extension’s integrator function and other emergent roles that add value to investment in sustainable and productive rural and regional futures.
5. A coordinated approach is needed

The development of a coordinated extension approach to better organise and gain value from public and private extension services is essential. This coordinated approach is needed to underpin cross-sector and political dialogue leading to improved professional development, coordination, and extension policy in Regional, Industry, State and Australia-wide service delivery systems.

The focus of extension has moved from its original agricultural and rural development mandate to include environmental and other concerns of the wider society. A broad range of stakeholders are making increasingly competing claims on rural communities, natural resources, the rights of land managers, and on production systems.

Extension needs to be considered as an effective policy instrument in its own right and in combination with other instruments. Ongoing commitment to funding the professional development of extension practitioners is necessary to provide the needed capacities for achieving institutional and policy developments as well as on-ground change.

6. Concluding comments

The achievement of effective and sustainable outcomes in primary industry value chains and improved natural resource management practices in Australia requires understanding that:

- Extension is a useful policy instrument.
- Extension can be used in its own right and in conjunction with other policy instruments.
- The meaning of extension has changed from problem-based technology transfer to the process of enabling change in individuals, communities and industries involved in the primary industry sector and with natural resource management.

Extension is most valuable for achieving effective outcomes when used alongside and in combination with other policy instruments. Establishing a common understanding of extension in Australia will assist the many stakeholders influencing the creation of world-class, competitive primary industries and the achievement of sustainable natural resource management.
Key Extension Resources


Glossary

Capacity building: involves externally and internally initiated processes designed to help individuals and groups appreciate and manage their changing circumstances by increasing access to skills and resources.

Community engagement: the process by which the target group actively participates in planning, development, implementation, decision-making and evaluation.

Extension: the process of enabling change in individuals, communities and industries involved in primary industries and natural resource management.

Market failure: refers to situations when the free market does not result in an optimal outcome, or when a desired outcome cannot be provided by the market, as is often the case with public goods. Market failure is often regarded as a justification for government intervention.

Natural resource management (NRM): refers both to the management of natural resources, and also to the issues themselves. NRM includes a broad range of issues that affect primary production and habitat protection, including salinity and declining water quality and quantity; pest, weed and feral animal issues; and land degradation.

Participation: the process of actively involving stakeholders in the development and delivery of projects and programs.

Policy instrument: a method or mechanism used by government and government agencies as well as other institutions including business to achieve a desired effect.

Public benefit: refers to the advantages of an activity or practice that are created for the community as a whole, even if there is also a private benefit. Thus, when a farmer plants a highly profitable tree crop in place of grain crops, they may generate both private benefits (greater commercial returns) and public environmental benefits.

Target group: a subset of the community that has been identified as the intended beneficiary of the project or program.
Note: The agencies displayed on this page have indicated their in-principle endorsement of the document and have given approval for their logo to be used. Other state agencies are reviewing this document and their logos will be appended once approval has been granted.
Appendix 2

Triple-Loop-Agreement Considerations and Guidelines for SELN

In the following sections the implications of the triple-loop-agreement model on future SELN interactions are considered. A proposal is documented which outlines principles and options for SELN’s approach to engaging with other extension stakeholders as well as within the group itself. This proposal takes the form of a series of steps which align with the triple-loop-agreement model. It is envisaged that this proposal could be presented to the SELN group at a future meeting for consideration and agreement (adaptation or otherwise).

1. Convergence on the purpose for influencing others

   SELN established its intentions for influencing others in its Business Strategy.
   **Vision:** Extension contributes value to achieving desired Government outcomes.
   **Mission:** Provision of leadership and strategic direction in the development of State and National extension service delivery.
   **Purpose(s):** Creating excellence in extension ‘service’ delivery leading to desired outcomes; Facilitating cooperation/exchanges; Advancing staff development; Developing joint projects; Discussing high-level strategic issues, e.g. Benefit/Cost evaluation and identifying where extension fits with other policy instruments; Sharing knowledge (community of practice); Influencing the movers and shakers outside this group; Enhancing/encouraging combined/collective effort, and; Identifying and developing appropriate strategic alliances.

   It has been explicitly acknowledged in the group that achieving SELN’s Business Strategy requires SELN to influence others. SELN members decided that they need to ‘practice what they preach’ and that extension processes and extension functions should form the basis of interactions with other stakeholders and nested systems.

2. Choosing an agreement strategy – Agreement to move toward collaboration

   It is important to decide which agreement strategy is preferred for dealing with the wicked problems and complex intractable issues SELN is facing (Figure 11.2). A critical issue for extension policy agreements is to move from past strategies, with their obvious win-lose or lose-lose outcomes, to a win-win scenario essential for longer term coherency, reciprocal relationships and joint outcomes. This requires agreement to maintain a dynamic stance that:

   (i) Considers the trade-off between relationship with a given party (e.g. nested system) and the outcome SELN is aspiring towards (See Figure 11.2)

   ![Substantive Outcome Important?](image)

   **Substantive Outcome Important?**

<table>
<thead>
<tr>
<th>Relational Outcome Important?</th>
<th>No</th>
<th>Yes</th>
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<tbody>
<tr>
<td>Accommodation</td>
<td></td>
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<tr>
<td>Collaboration</td>
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<td>Integrative</td>
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<td>Avoidance</td>
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<td>Flight</td>
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<tr>
<td>Competition</td>
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<tr>
<td>Distributive Fight</td>
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   Figure A2-1: Deciding to move multi-stakeholder negotiations toward collaboration
(ii) Continuously decides on the level of convergence needed within SELN on the best agreement approach for resolution of specific issues. It is important to consider the level of reflexivity required by considering the following three agreement loops:

1. **Single loop** – using our normal socialised routine to influence and negotiate issues with others but without modifying our governing values

2. **Double loop** – considering paradigms (beliefs, values and norms reasons, motives, and assumptions) of others and modifying our governing values to ‘win’

3. **Triple loop** – all participants are provided the space to agree on the agreement approach and process with the aim of considering and ‘designing’ collective assumptions and beliefs.

For example, when SELN chooses to take a collaborative route to addressing a particular issue or achieving an identified purpose (e.g. developing joint projects), more effective outcomes will result by entering the third loop and collectively ‘agree on the agreement process’.

3. **Building on enthusiasm**

The emotion or driving force idea of enthusiasm is central in psychology as a biological drive – the engine of life. Enthusiasm of individual SELN members for improving extension’s capacity for achievement of effective outcomes has been demonstrated to be a foundational strength of the group. This enthusiasm is linked to understanding, agreement, and confidence as a prerequisite for ‘getting things done’.

Within the group and with other stakeholders SELN members endeavour to:

(i) Find where a person’s energy is – Seek enthusiasm by asking questions

(ii) Look to the narrative – Take notice what people say and show sensitivity to their stories

(iii) Encourage climates in which all accept and understand that each person's knowledge and experience is unique and valid

(iv) Demonstrate a desire to hear what others say and how they say it through verbal and non-verbal behaviour

(v) Manage the environment so people feel they will be listened to equally and encouraging convergence rather than demanding ‘agreement’

SELN intentionally employs active inquiry and action research with a focus on people’s enthusiasms aiming to lead to increased ownership of more meaningful outcomes rather than conventional approaches which simply ‘discover the facts’.

4. **Designing participation together**

Identifying the most effective extension policy options for enabling sustainable NRM and primary production is a highly complex endeavour requiring cross-agency, multi-sectoral and multi-discipline participation. As extension policy impacts on different people in a variety of ways, a high degree of diversity is desirable in the policy development process, from conception through to policy implementation and review.

Collective ‘design’ and ownership of the participatory methodology itself is valuable. To instigate ‘design’, inclusive calls for participation are preferable. From here participants can then negotiate how they wish to participate
5. **Enabling creativity**

SELN supports that creativity is essential for moving beyond the paralysis of existing extension policy development processes. SELN targets effective creation of new solutions for extension policy through:

(i) Advocating the need to ‘think differently’ as much of our existing thinking based on ‘argument’ and defending positions does not equip participants with the tools to be creative.

(ii) Responding to creativity barriers which lead to weak DESIGN of what SELN needs to do to ‘get value’ from its internal and external interactions.

(iii) Using a range of TOOLS to progress creative thinking – e.g. de Bono’s ‘6 Thinking Hats’ and Lewin’s ‘Force-Field Analysis’.

(iv) Expecting the guardians of the status quo to resent any creative change, especially if they do not understand it.

6. **Framing and re-framing dialectic**

‘Framing’ is a descriptor for how SELN members individually and collectively construct and make sense of issues and conflicts. SELN members frame an issue by developing interpretations of:

- What it is about?
- Why it is occurring?
- The enthusiasms and motivations behind parties involved?
- How it should be resolved?

Framing is useful for comparing interpretations amongst participating parties and enabling extension stakeholders and adversaries to ‘re-frame’ conflicts. For Framing Future Action when ‘designing projects for achieving outcomes’ with PISC, useful Frames for SELN to focus on include:

(i) Power – who can control or subvert agreements?;

(ii) Identity – what image does SELN wish to portray in specific agreements?;

(iii) Characterisation – how does SELN characterise other negotiating parties?;

(iv) Conflict Management – what does SELN and/or other parties assume the agreement process to be?;

(v) Whole Story – what is SELN’s and/or other parties’ perception of the whole story surrounding the issue?;

(vi) Social Control – what is SELN’s perception of other parties’ approach to seeking agreement (and vice-versa);

<table>
<thead>
<tr>
<th>Low Ownership</th>
<th>High Ownership</th>
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<tbody>
<tr>
<td>Low</td>
<td>High</td>
</tr>
<tr>
<td>Individualist</td>
<td>Egalitarian</td>
</tr>
<tr>
<td>Fatalist</td>
<td>Hierarchist</td>
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</table>

Figure A2-2: Social Control Frames \(^{138}\) (after Lewicki et al. 2003)

\(^{138}\) This is another way of expressing the trade-off between concern about the substantive issue and concern about the relationship (See Figure 6.4)
(vii) Issue – how does SELN and/or other parties perceive the issue(s) at stake?:
(viii) Cultural – what perceived attributes of SELN’s and/or the other parties’ culture influence agreements (e.g. values, beliefs, paradigms)?
(ix) Language – how does the interpretations of language used by SELN and/or other parties influence the agreement?, and;
(x) Meme – in what way do particular memes (e.g. ‘extension’ or ‘capacity building’) influence SELN and/or other parties’ interpretations of particular aspects of the agreement?

7. Sustaining social learning
For SELN, Social Learning lies at the heart of effective multi-party agreements.
For example, social learning associated with extension policy targets: “increased awareness and understanding of multiple perspectives leading to an increase in connections and agreement for joint action in the development and implementation of extension policy.”

Social learning for extension policy processes implies:
- Working with and exploring multiple perspectives of extension stakeholders
- An iterative process of knowledge co-production between stakeholders involved in social interactions related to extension policy development
- Transformation of multiple cognitive systems into a distributed cognitive system amongst extension stakeholders to allow concerted action
- A dynamic process that is active, reflexive, adaptive and self-sustaining based on the collective enthusiasm of extension stakeholders who genuinely believe they can influence knowledge and practices for a better world.

Social learning is the engine room at the core of SELN’s triple-loop-agreement model and approach as a methodological approach that aims to foster coherent reframing amongst stakeholders. The central assumption here is that improved coherency amongst the perspectives of all extension stakeholders involved in multi-stakeholder (negotiation) processes (e.g. deliberating NEFA details) will help enable improved correspondence of the resolutions achieved with the actual issue being addressed.

The following considerations are important for SELN’s (or other multi-stakeholder extension organisations’) employment of social learning to underpin agreements:
1. The predominating narratives of law and economics are increasingly major influencers for changing the practices of consumers and resources users and managers. The social narrative, including processes such as social learning, supported by extension and other capacity building vehicles pursuant of voluntary change, continues to be marginalised. An extension policy agreement process needs to progress methods of inquiry with stakeholders from legal and economic sectors asking ‘what they need from extension to achieve their aims?’ Social learning has been demonstrated to work well within a strong regulatory framework, e.g. water in the Netherlands (Röling pers. comm.). It will be useful for SELN to identify with legal and economic stakeholders what extension’s role should be in achieving economically viable, effectively governed and environmentally embedded development?
2. Whether deliberation and agreement of extension policy nationally is a rational scientific process or whether it is predominantly political is a dilemma. It may be advantageous for SELN to focus on enabling social learning ‘in the political machine’ and remain responsive to shifting political issues (as well as simply focusing on an underlying rationality of improving the RD&E linkages amongst research, development
and extension domains). SELN may wish to consider sub-political movements as a driving force, e.g. liaise with producer and NRM groups to generate conflict and secure sub-political support, or use pressure groups to create political profile for “coordinated extension policy”.

3. SELN needs to highlight the need for social learning by overseeing long term scenario planning for Australian agriculture. For example, if Australia is going to pre-think and take advantage of developments in China, now a gross importer of some primary commodities, current production approaches will need to adapt.

4. The power of uncertainty and the unknown is an asset SELN can use to enable multi-stakeholder social learning processes. An extension policy agreement process needs to explicitly work with this ‘fear of the unknown’ to identify the major concerns and blind spots inherent within different community sectors. Uncertainty regarding extension policy in Australia can be informed by the fact that internationally, following two decades of criticism and change as Governments have retracted investment in extension, there is new awareness of the role of the public sector in funding, if not necessarily delivering extension services. Where government funding has been withdrawn from extension, although efforts are taken to reposition these services with other sectors, generally extension services suffer a sharp decline (Oladele 2004). Evidence that systematically and effectively provided extension services enhance social and economic development with returns typically above 40 percent reinforce the certainty that these services cannot be withdrawn (Rivera and Qamar 2003). These authors further argue the role of government is critical for reconstruction of extension, with only national governments able to assume responsibilities that affect the state as a whole and ensure extension services work for the public good, even if those services are provided by contracting with private sector providers. Moreover only national governments can enable institutional pluralism in extension service provision and oversee quality enhancement and assurance necessary for rural development (Rivera and Qamar 2003).

8. Leadership and facilitation of triple-loop-agreement

Effective facilitation of multi-stakeholder (negotiation) processes requires a clear pathway for SELN members and all other participants, as well as for the leader(s) and facilitator(s). Key considerations for leadership of multi-stakeholder processes associated with SELN include members:

- Practicing what they preach and leading by example;
- Identifying and involving those with the power to enable or prevent change;
- Being aware that each stakeholder comes with their own strategic and altruistic enthusiasms/motivations;
- Advocating that ‘win-win’ outcomes will enable stakeholders and leaders from other nested systems to participate in and support multi-stakeholder processes
- Taking small steps – Beginning in action
- Identifying champions and enrolling their interest and support

It is essential that all parties understand facilitation of inter-agency deliberations never happens in a vacuum and collective success cannot rely just on the skills of facilitators. The design of the facilitation pathway is critical to the ultimate success of deliberative multi-stakeholder engagements (e.g. RDC-SELN negotiations).

It is critical to consider that while facilitators may prefer particular ‘facilitation’ approaches, there is no guarantee that involved agency managers and other senior stakeholders share similar outlooks, understanding or capacity. The leadership qualities and behaviours of
agency managers involved are critical to finding the best methods and tools. A **negotiated** facilitation plan is required. This will ideally include process agreements enabling ongoing review and inclusive adaptation of how decisions are made as well as critical inquiry into the **institutional blind spots** that perpetuate intractable wicked problems such as extension policy. Based on experiences with working in groups, some individuals might think ‘you don’t need rocket science to work with others and get things done’. Other stakeholders, however, have quite different perspectives based on difficult or failed ‘multi-stakeholder negotiation’ processes. Regardless of past experience, it is well proven that the potential for stakeholders to arrive at ‘collaborative outcomes’ is greatly influenced by the facilitator’s repertoire of tools and approach. Generally facilitation:

- Needs to be transformative – nest and link transformative cells systemically
- Always needs to work from actors own self-interests
- Work back from critical audiences’ needs
- Identifies critical opponents and works out what they need from extension (Need systematic analysis of counter forces, e.g. Forcefield Analysis)
Appendix 3  
**Nested Triple-Loop-Agreement Model**

Normative negotiation strategies are included at each level. I present this as an alternative representation of the distributed triple-loop-agreement model in Figure 11.1

Figure A3: A nested triple-loop-agreement model to aid the design of reflexive multi-party NRM negotiation processes.
Summary

It can be argued that extension – a service-delivery model used by Governments along with industry and community stakeholders for over a century in Australia, and much longer internationally – has successfully contributed to agricultural development and the primary production sector. However, despite its long and productive history, changing economic, ecological and social realities have seen extension falter as a useful model to support achievement of today’s expectations for rural landscapes, livelihoods and lifestyles.

This thesis seeks to understand the barriers and bottlenecks which prevent the implementation of extension policy for enabling sustainable natural resource management (NRM) by the Queensland State Government in Australia. The study was an inductive research journey investigating extension’s role and function within the institutional arrangements supporting NRM, and indeed, how the attributes of extension are institutionalised. The learning journey followed an emergent tension around the ‘role of extension for NRM’ in the Queensland Government. The principal aim of this study was to investigate organisational negotiation practice and consider how diversity in conflicting values, beliefs, paradigms and knowledge systems impact on the institutionalisation of extension services for NRM. A further aim was to add value to the extension discipline through identifying roles for negotiation as an extension philosophy and process in traditional extension functions in community, as well as internally within extension organisations. The key research question was: “What processes and approaches do people in natural resource management use to negotiate outcomes given the different values and paradigms in the Department and the community, and in what ways can these approaches, when reflected against literature, inform, develop and institutionalise extension in the Department of Natural Resources & Mines?” A grounded theory approach was taken to analyse and draw learnings from empirical observations and data over a nine-year period (2000-2009). Data collection occurred through a mixture of action inquiry, participatory action research, reflective practice and participant observation. The accounts of six research episodes were recorded in an autoethnographic format which enabled these research strategies to be implemented.

The context of this study and the crises extension finds itself embroiled within are explained in Chapters 1 and 2. It seems that over the last two decades, the broader emphasis on managing natural resource systems for sustainable rural futures is not enabling a re-discovery (or re-invention) of agricultural extension. In Queensland, in Australia, and internationally, it appears that the context of extension is irrevocably changing as the pace of change itself continues to hasten. In Australia, extension’s legitimacy and status generally, as well as extension’s role for supporting the adoption of sustainable NRM practices specifically, are quite problematic. The changing context of extension sees that it is in crisis nationally, even though it appears to be practiced in various ways with over 4000 professionals in Australia regarding themselves to be ‘extension practitioners’. Globally, extension also seems to be in a critical position with changing expectations of rural environments, organisational issues and new technologies calling for recognition of new professional identities to meet the evolving challenges. In Queensland, extension lacks legitimacy in NRM circles, and as Government focus changes under a neoliberal political context, it is quite unclear where extension policy directions and funding support are headed. As the context for extension expands to include NRM and wider environmental concerns, it appears that institutional and policy stakeholders for agricultural extension are not predisposed to change.
It could be argued that as supporters of a discipline intrinsically dealing with change, extension practitioners should have the capacity (and be taking action) to proactively respond to transformation of social, economic and political expectations. However, this does not appear to be occurring, at least, not in a coordinated manner. Despite the need for extension to reinvent itself, in view of new circumstances such as increasing focus on NRM and sustainability, the wider extension system appears unable to respond to the need for change.

Chapter 3 examines the extension crisis by investigating issues encountered in a two-year extension strategy process conducted in DNR&M, Queensland’s lead agency for NRM. DNR&M was an amalgamation of the natural resources section of the Department of Primary Industries (DPI), with the Department of Lands (DoL). As a land administrator, DoL never had an extension service, however many former DPI staff involved in the DNR&M merger brought agricultural extension experience with them. Over a twelve month period (1999-2000), participatory methods were used to develop DNR&M’s Extension Strategy. A working group coordinated strategy development and considerable resources were invested in developing the ‘New Extension Framework’. Time showed, however, that there was significant opposition to introducing extension into DNR&M. Despite this resistance, a number of concerned staff (extension practitioners and supporters) committed efforts to seek a successful outcome, and to turn these negative opinions around. Despite their efforts, the DNR&M Deputy Directors General (DDGs) failed to approve the New Extension Framework. While a directive to abandon New Extension was not given, the efforts of the working group to progress the framework were thwarted by the ongoing reluctance of the DDGs to clearly communicate their support and endorse implementation. Chapter 3 concludes with an argument that extension was not well integrated within the Queensland Government, nor was it responsive to the broadening focus of NRM and community engagement. A key issue was how decision-making takes place, specifically how the role and function of extension in NRM is decided.

Chapter 4 sets the context of the research journey where action research was incorporated into my full-time work with DNR&M. To develop a conceptual framework underpinning my research, key philosophies that the New Extension Framework aimed to embed in DNR&M were considered, alongside the dilemmas resulting from the working group’s early attempts at implementation. An underlying question emerging was ‘how to effectively operationalise negotiations amongst different paradigms and approaches to doing NRM business?’ It was apparent that to institutionalise New Extension in DNR&M, the distinct areas where negotiation processes need to be improved were: working with power and influencers; working with operational staff; and working with community clients. Further development of a conceptual framework was guided by an investigation of the literature on topics such as conflicting paradigms, negotiating within interactive processes, and reconceptualising conflict within interactive processes. This led to inquiry into ‘wicked problems’ and the epistemological underpinnings and biases of different parties and extension paradigms. Constructivism and memetics were used as dialectic tools to frame understandings of extension and how it is negotiated and institutionalised.

Chapter 5 considers two research episodes coordinated in DNR&M between June 2002 and June 2003, namely the ‘Aligning Services And Priorities Natural Resource Information Review’, and a review of barriers at the interface between extension and compliance agendas within the department. Both episodes investigated how institutional stakeholders interact, learn together and influence each other to enable change and achieve individual and mutual objectives. Barriers to negotiation and organisational change were examined. In both
episodes, analysis of the constructivism-memetics dialectic identified that the ways in which stakeholders attempt to influence the memes they support (e.g. ‘natural resource information’ or ‘compliance’) was strongly underpinned by their paradigms and how they construct their understanding of these memes. Paradigm differences between stakeholders in both episodes were crucial barriers to achieving effectively-negotiated outcomes. However, while the constructivism-memetics theoretical framework was a useful means of describing and analysing conflict, it lacked the language and accepted methodologies to assist interactive design of institutional multi-party negotiations. An emerging issue for theory development was how to enable better design (negotiation) of an organisational negotiation process that is able to make paradigm differences explicit and deal with them in an effective manner.

Chapter 6 refocuses the line of inquiry in this research in a theoretical intermezzo that deals with emergent learnings from the New Extension as outlined in Chapter 5. Outcomes suggested several difficulties for implementing projects as ‘multi-stakeholder negotiations’. It seemed that moving away from organisational rituals may cause difficulties for some people and making internal conflict visible can be threatening to some parties. Clear trustworthy approaches for dealing with conflict seemed to be lacking and people perceived they lack the mandate and/or confidence to conduct negotiations processes to address organisational issues (such as the role of compliance). It appeared that the lack of leadership and support from powerful people strongly inhibited the perceived legitimacy of using negotiation processes to deal with conflicting agendas. Some people arguably saw negotiation as ‘going against the tide’ and applied some resistance as they felt it went against their interests. Ineffectual presentation of the need for or significance of negotiation may have resulted in inadequate understanding, enrolment and/or engagement in the process. Furthermore, mistakes and/or weaknesses in facilitation may have resulted in suboptimal outcomes. The literature identified that negotiation theory provides a language for communicating with and enrolling conflicting stakeholders into an interactive process, where individual and collective negotiation approaches can be considered. Literature on decision-making, organisational change, subsidiarity, autopoiesis, nested systems and adaptive management helped improve the conceptual framework underpinning the constructivism-memetics dialectic. Adaptive management, the ‘lazy-eight model’ and triple-loop-thinking were put forward as tools to influence the constructivism-memetics dialectic in multi-stakeholder NRM negotiations. These three propositions placed memetic-constructivist thinking into an organisational change context to aid the design, organisation and operationalization of further research into institutional NRM negotiation activities.

Chapter 7 considered two research episodes coordinated in DNR&M between January 2003 and August 2004. The first episode targeted the use of negotiation thinking and theory in the development of a collective plan for continuation of the Rural Water Use Efficiency program across Queensland. The RWUE initiative was a highly successful industry driven NRM extension program developed as a partnership between rural industries and the government aiming to improve the efficiency of irrigation water use. The second episode presents four phases of a sustained effort to reposition extension in the wake of the failed New Extension strategy in the increasingly regulatory NRM environment. As introduced in Chapters 3 and 4, while considerable resources and efforts were committed to the development of the New Extension Framework, it was not supported by DNR&M executive management and not funded for implementation. While this appeared to be the formal position of the organisation, a number of extension supporters, both internal and external to DNR&M, were quite disturbed by this. My own attempt to reintroduce extension through the compliance agenda (as introduced in Chapter 5) was only one strategy among several through which stakeholders
were attempting to influence the roles of various non-coercive policy instruments. Both research episodes suggested that a lack of communication and negotiation across the boundaries between these nested systems was a key impediment to success and meme replication. While some middle managers in DNR&M recognised that extension has a role in supporting internal development and decision-making processes, clashes between coercive and non-coercive change paradigms resulted in domination by coercive change supporters and paralysis amongst non-coercive change supporters. The Adaptive Management and Lazy-Eight change models helped explain the dynamics and temporal characteristics of multi-stakeholder negotiations. The enthusiasm (or motivation) that drives different stakeholders seemed to enable the success or failure of multi-stakeholder negotiations. The importance of hidden agendas and clarification of what is actually being negotiated proved to be pivotal. The use of strategic language that is accepted and aligned with beliefs and values of people from different organisation levels and roles was very important. The triple-loop-negotiation model provided a useful means for conceptualising and assessing deliberative, multi-stakeholder processes. These episodes identified the need for further research into how the triple-loop-negotiation concept can be introduced for enabling reflexive and inclusive design of the negotiation process.

Chapter 8 is a theoretical intermezzo responding to questions raised in Chapter 7. The literature around organisation and facilitation of multi-stakeholder negotiation processes was explored to converge on a participatory negotiation model that aids understanding of the relationship between negotiation practice in NRM and the (institutional) role of extension. Several conceptual and theoretical areas emerged as key dimensions of a participatory negotiation model (or process methodology) for institutionalising extension for NRM. Separate but interconnected areas coalesced to form the basis of such a model from the preceding theoretical inputs (Chapters 4 and 6), inductive learnings from episodes, numerous interactions with extension practitioners, academics and agency staff, as well as the ongoing literature review.

Chapter 9 recounts snapshots from 2003 to 2005 in which extension policy investigations moved to a national scale. My intentions were to re-engage a national discussion on extension through coordinating a national extension policy workshop in 2003, a national extension policy forum in 2004, the formation of the State Extension Leaders Network in 2005, and an NRM extension symposium in Toowoomba in 2005. Considerable enthusiasm for influencing extension policy was identified through this research, even though the planned activities did not achieve expected results. Generally, the facilitation processes, interactions and deliberations were in line with (or inspired by) the triple-loop-negotiation model. The working group more than met my expectations of becoming an autopoietic, self-organising and reflexive nested system. It was challenging however, to elevate stakeholders to explicitly embrace and use the language and concepts of triple-loop-negotiation. My understanding of, and confidence in advocating the value of explicitly taking a ‘negotiation approach’, was a key impediment to successfully presenting the triple-loop-negotiation model. Conversely, taking an implicit triple-loop-negotiation approach, without explicitly using negotiation language, proved to be effective for strengthening the position of the group and designing a larger negotiation process. The triple-loop-negotiation model proved to be a workable framework for thinking about and analysing interactions and assessing the value of a negotiation approach. A revised proposal was that the triple-loop-negotiation model may have value as an implicit guide for a facilitator to operationalise (without using negotiation language) identity building, feelings of interdependence, autopoiesis (self-organisation) and strengthening group position prior to progressing negotiation with others.
Chapter 10 recounts the development and achievements of the National Extension Leaders Network (SELN), which comprises State and Territory extension leaders and influencers from across Australia, from its beginning to late 2009. The outcomes from Chapter 9 and emergent perspectives from preceding chapters, led me to take a lead role in initiating SELN as a strategically positioned nested system in the wider Australian extension/capacity building system. The line of inquiry was into how a nested system of extension leaders and influencers might negotiate and help influence improved coordination, collaboration and ultimately coherence and correspondence within the Australian extension system. The major difference to previous chapters was application of the triple-loop-negotiation model in an implicit manner without explicit use of negotiation language. Also it was applied within a low-conflict homogeneous group in preparation for wider negotiations with divergent parties. SELN first met in mid-2005 where the group’s identity and role were established. This meeting set the pretext of negotiating the negotiation approach and process by setting the boundaries around SELN and identifying the strategic needs within the group. Up until late 2009, SELN met a further 14 times. Even though triple-loop-negotiation was not formally presented through these meetings, SELN was able to develop as a cohesive group and progress negotiation activities in a reflexive manner.

SELN’s major achievements include:

- National dialogue amongst leaders of the biggest investor in extension within Australia, State Governments.
- State Government sign-off on the SELN Extension Statement *Enabling change in rural and regional Australia: the role of extension in enabling sustainable and productive future*.
- Publication of a set of case studies on best practice extension: *Extension works: case studies demonstrating how extension enables change in rural Australia*.
- Workshops with the Communication Managers from the various Research and Development Corporations and development of projects influencing the role of extension in the Research Development and Extension model.

The SELN experience was largely an effective network and identity building exercise, with negotiation being somewhat implicit. The facilitation processes, interactions and deliberations within this research episode were generally in line with the triple-loop-negotiation model. The main difference of Chapter 10 to Chapter 9 is that negotiation language and concepts were not used in the majority of SELN engagements, plans or projects. A major conclusion was that there is considerable value in the use of the triple-loop-negotiation model as an implicit guide for aiding the facilitation of multi-stakeholder extension policy negotiations. The strengths and value of an un-funded, self-organising and voluntary group, such as SELN, in achieving their aims and influencing change, proved to be very positive when the group employed non-confrontational and reflexive models of engagement. Considering extension as a policy instrument was a valuable means of reframing the identity of the extension practice, profession and discipline from that of an ‘add-on’ component of the traditional research, development and extension continuum into a policy instrument for use in its own right, or in combination with other policy instruments. Confirming previous learnings, the language of negotiation appeared to thwart efforts to engage multiple-stakeholders in using a ‘negotiation approach’ for addressing issues with divergent and conflicting positions. SELN members acknowledged the need to negotiate but preferred an adaptive approach, using formal and informal networks, rather than implementing a planned negotiation methodology.
Chapter 11 addresses the research questions and provides key messages and recommendations for improvements in NRM extension in Queensland and for extension policy in Australia. Investigations around the general research question identified that approaches institutional NRM stakeholders used to negotiate resolution of problems such as NRM extension policy, lack rigour and were not organised in line with contemporary negotiation methodologies. Negotiation processes were driven by the enthusiasms and epistemological leanings of the influential figures or ‘power players’ in the given situation. The willingness and capacity of stakeholders to contribute to deciding how decisions are going to be negotiated were limited and varied. The perpetuation of numerous overlapping initiatives and competing agendas was arguably the result of this lack of capacity to design effective negotiation processes. Competing memes central to the ‘NRM extension’ space (e.g. incentives, extension, capacity building or knowledge management) were overlapping and actually quite compatible with extension, with differences largely emanating from the organisational units or institutional groups that support these different bodies of knowledge and practice. So rather than a clash of memes, the conflict was more related to the lack of visibility each group was afforded of other groups’ memes and institutional barriers which stood in the way of effective dialogue and meme (re-)alignment. Institutional blind spots played a large part in the inability of different memes to replicate. The dialectic relationship between memes in the ‘non-coercive change’ space and how they were socially constructed appeared to be strongly influenced by an institutional environment that favours the development of competing memes and their associated constructs. Without effective tools to organise and facilitate negotiations across these silos of constructed reality, policy instruments such as extension, capacity building or regulatory compliance have not been afforded the institutional space to be openly considered, negotiated and institutionalised. As evidenced by the non-endorsement of New Extension and problematic outcomes of National Extension Policy Forums, extension requires new models to support its own existence, legitimacy and relevance.

This thesis has evolved multi-stakeholder negotiation theory through the development of a normative model to aid understanding, organisation and facilitation of multi-stakeholder processes, particularly those aiming to negotiate complex intractable issues such as extension policy. The model has progressed as an epistemological approach that guides inquiry into the realities of multiple (organisational) stakeholders with divergent agendas and seeks agreement through reflexive social learning processes. Only in the latter stages of this research was the realisation that explicit use of negotiation language can be problematic, and may actually hinder deliberations and negotiations over conflicting points of view. A more amenable language and conceptual entry-point for facilitating and analysing multi-stakeholder processes may be through ‘seeking agreement’, thereby shifting the terminology of triple-loop negotiation slightly to that of triple-loop-agreement.

Key messages from this research include:
1. Extension in Queensland (and Australia) is moribund, in disarray, with no national plan.
2. Extension professionals find it challenging to design and implement multi-stakeholder processes that target improvements in extension policy.
3. Triple-loop-negotiation is a useful model for enabling change in extension policy.
4. A nested system of leaders (SELN) can influence extension policy within Australia.
5. Regarding extension as a policy instrument is valuable for developing extension policy.

Recommendations centre on institutionalising NRM extension in Queensland through using a triple-loop-agreement approach in efforts leading toward the development of a National Extension Framework for Australia. These recommendations include:
1. The author needs to present the triple-loop-agreement model and research messages from this thesis to a group of extension leaders at a national level (e.g. SELN).
2. This above group of extension leaders (e.g. SELN) needs to establish the business case for the extension policy instrument.
3. This group of extension leaders (e.g. SELN) needs to commission a working group tasked with instigating deliberations and triple-loop-agreement amongst key nested systems within the Australian extension system.
4. This working group needs to obtain endorsement from the Council of Australian Governments (CoAG) to develop a wider National Extension Framework for Australia.

Further recommendations support development of a National Agreement for Extension and Capacity Building, including preferred funding and policy arrangements for the development of an Intermediary Organisation which will aid implementation of agreed policies.

All this may be surprising, particularly for international perspectives that do not see similar levels of support for extension in other nations, or within the suite of non-coercive change instruments. However, many supporters of extension in Australia see value in helping enable the extension meme to replicate. This research has attempted to identify the broader role extension can play in Queensland, Australia and beyond, specifically in helping to enable change in social and biophysical systems, and more broadly as a service delivery model that can help secure sustainable landscapes, lifestyles and livelihoods. Historically, agricultural extension has witnessed the facilitation of large-scale improvements in food production and the modernisation of farming and social systems to feed growing populations. As the expectations for investing in agricultural extension have been realised however, the tide has turned with the consequences of development and resource exploitation coming to bear. The wicked problems we are now encountering may be unanticipated and inherently complex social dilemmas, but they require urgent action if we are to secure sustainable futures.

To play its part, extension needs to empower people and enable their voice(s) to be heard in deliberations about human crises such as climate change, food shortage and population pressure. To help resolve such crises, extension has a role as a policy instrument in its own right and as an integrator, facilitator and support function in combination with other instruments. Extension needs to take its rightful place as a discipline enabling change through ‘spanning the boundaries’ of the traditional human narratives of economics, law, management and science. This thesis has attempted to identify reflexive models that assist extension practitioners and supporters to adapt their practices and proactively influence extension policy and the institutionalisation of such new ‘boundary spanning’ roles. In order to achieve a resilient future for our natural resource and sustainable use of the very ecosystems on which we depend, extension needs to factor NRM considerations concurrently with economic, social, legal and scientific aspects of the human experience. For NRM, extension’s key role is to influence reflexive inter-stakeholder network building, learning and negotiations that are inclusive of these traditional narratives. Extension thus, has a role in facilitating and enabling truly reflexive decision-making in Australian, and indeed global multi-stakeholder and inter-organisational governance systems pursuant of sustainable natural resource management outcomes.
Samenvatting

Men kan stellen dat voorlichting - een vorm van dienstverlening die al meer dan een eeuw in Australië en al veel langer op internationaal niveau, wordt gebruikt door Regeringen en stakeholders (belanghebbenden) vanuit de industrie en lokale gemeenschappen - met succes heeft bijgedragen aan landbouwontwikkeling en de sector van primaire productie. Toch heeft, ondanks de lange en productieve geschiedenis daarvan, veranderende economische, ecologische en sociale realiteiten voorlichting ingeboet als erkend en bruikbaar model om tegemoet te komen aan de verwachtingen die vandaag de dag gelden voor rurale landschappen, manieren van levensonderhoud en levensstijlen.

Het doel van deze thesis is om inzicht te verkrijgen in de barrières en knelpunten die verhinderen dat voorlichtingsbeleid door de Regering van de Staat Queensland in Australië wordt ingezet om duurzaam beheer van natuurlijke hulpbronnen (natural resource management / NRM) te verwezenlijken. De studie was een inductieve onderzoeksreis naar de rol en functie van voorlichting binnen de institutionele regelingen die NRM ondersteunen en, daarbij, hoe de eigenschappen van voorlichting worden geïnstitutionaliseerd. De ontdekkingstocht volgde een zich gaandeweg ontluikende spanning binnen de Regering van Queensland omtrent de 'rol van voorlichting voor NRM'. Het voornaamste doel van deze studie was om onderzoek te doen naar de praktijk van organisatorische onderhandelingen en om te bestuderen hoe diversiteit in conflicterende waarden, overtuigingen, paradigma's en kennisystemen van invloed zijn op de institutionalisering van voorlichtingsdiensten ten bate van NRM. Een volgende doelstelling was om de waarde van voorlichting als vakgebied te doen toenemen door het determineren van rollen voor onderhandeling als voorlichtingsfilosofie en proces te midden van traditionele voorlichtingssituaties in de maatschappij, alsook intern binnen voorlichtingsorganisaties. De centrale onderzoeksvraag luidde als volgt: "Welke processen and benaderingen worden door betrokkenen op het gebied van beheer van natuurlijke hulpbronnen gebruikt om te onderhandelen over uitkomsten gezien de verschillende waardes en paradigma's binnen de Afdeling (Department) en de maatschappij, en hoe kunnen deze benaderingen, wanneer bezien tegen het licht van literatuur, de plek van voorlichting verder informeren, ontwikkelen en institutionaliseren binnen de Afdeling Natuurlijke Hulpbronnen en Mijnbouw (Department of Natural Resources & Mines, DNR&M)?" Hierbij is gebruik gemaakt van een grounded theory-benadering voor het analyseren van en lering trekken uit empirische observaties en data gedurende een periode van negen jaar (2000-2009). Dataverzameling geschiedde middels een combinatie van actie-onderzoek (action inquiry), participatief actie-onderzoek, reflectieve praktijk en participerende observatie. De verslagen van zes episodes van onderzoek zijn opgetekend in een auto-etnografische weergave die mogelijk maakte dat deze onderzoeksstrategieën werden geïmplementeerd.

De context van deze studie, en de crises te midden waarvan voorlichting zich bevindt, worden uitgelegd in Hoofdstukken 1 en 2. Het lijkt er op dat de bredere nadruk, gedurende de afgelopen twee decennia, op het beheren van systemen van natuurlijke hulpbronnen voor duurzame rurale toekomst een herontdekking (of her-uitvinding) van landbouwkundige voorlichting heeft verhinderd. In Queensland, in Australië, en op internationaal niveau lijkt de context van voorlichting onherroepelijk te veranderen te midden van een tijd waarin de pas waarmee verandering zich voltrekt zich blijft versnellen. In Australië is de legitimiteit en
algemene status van voorlichting, alsook met name de rol van voorlichting in het ondersteunen van de aanvaarding van duurzame NRM-beoefening, enigszins problematisch. De veranderende context van voorlichting erkent dat het zich op nationaal niveau in een crisis bevindt. Desondanks blijkt dat het op verschillende manieren door meer dan 4000 professionals in geheel Australië wordt beoefend die zich elk beschouwen als ‘praktizerend voorlichter’. Ook op mondiaal niveau lijkt voorlichting zich op een kritieke moment te bevinden aangezien veranderende verwachtingen van rurale milieus, organisatorische kwesties en nieuwe technologieën elk roepen om de benoeming van een nieuw soort professionele entiteiten om tegemoet te kunnen komen aan de zich alsmaar verder ontwikkelende uitdagingen. Binnen NRM-circuits in Queensland ontbreekt het aan de toekenning van legitimiteit aan voorlichting en terwijl de focus vanuit de Regering verandert onder een neoliberale politieke context is de richting van voorlichtingsbeleid, alsook van de steun uit fondsen, vooralsnog onduidelijk. Terwijl de context voor voorlichting zich uitbreidt om ook NRM en bredere milieukundige kwesties te omvatten lijkt het erop dat institutionele en beleidsmatige stakeholders op het gebied van landbouwkundige voorlichting niet geneigd zijn tot verandering.

Men zou kunnen stellen dat beoefenaars van voorlichting, als voorstanders van een discipline die intrinsiek te maken heeft met verandering, het vermogen moeten hebben (en actie zouden moeten ondernemen) om proactief te reageren op veranderingen in het domein van sociale, economische en politieke verwachtingen. Toch lijkt dit zich niet voor te doen, of in ieder geval niet op gecoördineerde wijze. Ondanks de noodzaak van voorlichting om zich opnieuw uit te vinden, bezien in het licht van nieuwe omstandigheden zoals een toenemende nadruk op NRM en duurzaamheid, lijkt het bredere systeem van voorlichting niet in staat om te reageren op de noodzaak van verandering.

Hofdstuk 3 bestudeert de crisis omtrent voorlichting middels onderzoek naar kwesties die zich hebben voorgedaan gedurende een tweejarig proces van voorlichtingsstrategie welke is uitgevoerd in DNR&M, de voornaamste instantie in Queensland op het gebied van NRM. DNR&M was een fusiering van de afdeling natuurlijke hulpbronnen van de Department of Primary Industries (DPI) met de Department of Lands (DoL). In de hoedanigheid van landbeheerder had DoL geen geschiedenis in het aanbieden van voorlichting, maar vele voormalige staf van DPI die betrokken waren bij de fusie tot DNR&M brachten ervaring mee op het gebied van landbouwkundige voorlichting. Gedurende een periode van twaalf maanden (1999-2000) werden participatieve methodes gebruikt om de Strategie van Voorlichting (Extension Strategy) van DNR&M te ontwikkelen. Een werkgroep coördineerde de ontwikkeling van strategie en de nodige middelen werden ruimschoots ingezet om de ontwikkeling van het 'New Extension Framework' ('Nieuw Kader van Voorlichting') te verwezenlijken. Na verloop van tijd werd echter duidelijk dat er aanzienlijke weerstand was tegen het invoeren van voorlichting binnen DNR&M. Ondanks deze weerstand waren er daarnaast ook bezorgde medewerkers (beoefenaars en voorstanders van voorlichting) die zich hadden toegelegd op het behalen van een succesvolle uitkomst en op het doen bijdraaien van de negatieve meningen. Ondanks deze inspanningen weigerden de DNR&M Deputy Directors General (DDGs) het New Extension Framework goed te keuren. Een duidelijke stellingname om New Extension geheel op te geven werd niet gegeven, maar de inzet van de werkgroep om het kader verder te ontwikkelen werd belemmerd door de aanhoudende terughoudendheid van de DDGs om duidelijk hun steunbetuiging te communiceren en implementatie ervan te bevestigen. Hofdstuk 3 sluit af met een stellingname dat voorlichting niet goed was geïntegreerd binnen de Queensland Regering en dat het niet goed anticipeerde op de toenemende nadruk op NRM en maatschappelijke verbintenis. Een centrale kwestie was
de wijze van besluitvorming en met name de wijze waarop de rol en functie van voorlichting in NRM wordt besloten.

Hoofdstuk 4 schetst de context van de onderzoeksreis waarin actie-onderzoek werd geïncorporeerd in mijn voltijdsbaan bij DNR&M. Om een conceptueel kader te ontwikkelen ter onderbouwing van mijn onderzoek werden een aantal centrale filosofieën overwogen die de New Extension Framework zocht te lijven in DNR&M, waarbij ook de dilemma's die voortkwamen uit de eerdere pogingen ter implementatie van de werkgroep werden meegenomen. Een onderliggende vraag die daaruit voortkwam was 'hoe kan men effectief onderhandelingen operationaliseren tussen onderling verschillende paradigma's en benaderingen omtrent de praktijk van NRM?' Het was helder dat er, om New Extension te institutionaliseren in DNR&M, specifieke gebieden waren waarin onderhandelingsprocessen verbeterd moesten worden en deze waren als volgt: werken met macht en mensen van invloed; werken met uitvoerend personeel; en werken met maatschappelijke cliënten. Verdere ontwikkeling van een conceptueel kader werd gestuurd door een inventarisatie van de literatuur op onderwerpen zoals conflicterende paradigma's, onderhandelen te midden van interactieve processen en her-conceptualisering van conflict binnen interactieve processen. Dit leidde tot verdieping in 'kwaadaardige problemen' en de epistemologische funderingen en vooroordelen van verschillende partijen en voorlichtingparadigma's. Constructivisme en memetica werden gebruikt als dialectische gereedschappen om kader te bieden aan opvattingen omtrent voorlichting en hoe dit wordt onderhandeld en geïnstitutionaliseerd.

In Hoofdstuk 5 worden twee episodes van onderzoek beschouwd die binnen DNR&M werden uitgevoerd tussen juni 2002 en juni 2003, namelijk de 'Analyse Afstemming van Diensten en Prioriteiten Natuurlijke Hulpbronnen Informatie' ('Aligning Services And Priorities Natural Resource Information Review'), en een overzicht van barrières op het raakvlak tussen de agenda's van extension (voorzichting) en compliance (afdwingen) binnen de afdeling. In beide episodes werd onderzoek gedaan naar de manier waarop institutionele stakeholders onderling interacteren, samen leren en elkaar beïnvloeden om verandering mogelijk te maken en om individuele en gemeenschappelijke doelen te verwezenlijken. Barrières tegen onderhandeling en organisatorische verandering werden onderzocht. Bij beide episodes wees een analyse van de constructivisme/memetica-dialectiek erop dat de manieren waarlangs stakeholders de memes die zij steunen trachten te beïnvloeden (bijv. 'informatie omtrent natuurlijke hulpbronnen' of 'compliance') sterk werd onderbouwd door hun paradigma's en de manier waarop zij hun opvatting van deze memes construeerden. Verschillen in paradigmata's tussen de stakeholders vormden in beide episodes cruciale hindernissen in het behalen van effectief onderhandelde uitkomsten. Maar al was het theoretische kader omtrent constructivisme-memetica een nuttig middel voor het omschrijven en analyseren van conflict, het bevatte niet de taal en algemeen geaccepteerde methodologieën om bij te dragen aan een interactief ontwerp van institutionele onderhandeling tussen verschillende partijen. Een hieruit voortkomende kwestie omtrent de ontwikkeling van theorie was de vraag hoe een verbetering van ontwerp (onderhandeling) van een organisatorisch onderhandelingsproces kan worden mogelijk gemaakt dat bovendien in staat is om paradigmaverschillen te expliciteren en om daar effectief mee om te gaan.

Hoofdstuk 6 scherpt de vraagstelling in dit onderzoek aan met behulp van een theoretisch intermezzo dat ingaat op de ontdekkingen omtrent de New Extension zoals weergegeven in Hoofdstuk 5. De uitkomsten wezen erop dat de implementatie van projecten als zijnde 'multi-stakeholder-onderhandeling' op verschillende problemen zou stoten. Het leek erop dat een keuze om afstand te doen van organisatorische rituelen voor sommigen mogelijk zou leiden

In Hoofdstuk 7 werd ingegaan op twee onderzoeksepisodes bij DNR&M tussen januari 2003 en augustus 2004. De eerste episode ging in op het gebruik van onderhandelingsdenken en -theorie in de ontwikkeling van een collectief plan voor voortzetting van het Effectief Ruraal Watergebruik-Programma (Rural Water Use Efficiency Programme / RWUE) in geheel Queensland. Het RWUE-initiatief was een zeer succesvol, door industrie aangedreven NRM voorlichtingsprogramma, ontwikkeld als samenwerkingsverband tussen rurale industrie en de regering met het doel om de efficiëntie van watergebruik bij irrigatie te verbeteren. De tweede episode geeft vier fases weer van een aanhoudend streven om voorlichting, in het kielzog van de falende New Extension-strategie, te herpositioneren te midden van het in toenemende mate regulerende NRM-milieu. Zoals al aangegeven in Hoofdstukken 3 en 4 werd de New Extension Framework, ondanks de aanzienlijke middelen en inzet die al waren geleverd ten bate van de ontwikkeling daarvan, niet gesteund door het uitvoerend bestuur van DNR&M en werd er geen financiering beschikbaar gesteld voor implementatie. Dit leek het formele standpunt van de organisatie, maar ondertussen waren er meerden die voorlichting steunden, zowel intern alsook buiten DNR&M, en die hierdoor enigszins verontrust waren. Mijn eigen poging om voorlichting te herintroduceer middels de compliance-agenda (zoals aangegeven in Hoofdstuk 5) was slechts één van de verschillende strategieën waarlangs stakeholders de rollen van verschillende niet-dwingende beleidsinstrumenten probeerden te beïnvloeden. Beide onderzoeksepisodes suggeren dat een gebrek aan communicatie en onderhandeling tussen de grenzen van deze ingebette systemen belangrijke factoren van belemmering zijn voor succes en memereplicatie. Terwijl sommige bestuurders uit het middenmanagement in DNR&M herkenden dat voorlichting een bepaalde plek heeft in het ondersteunen van interne ontwikkeling en besluitvormingsprocessen, leidde confrontaties tussen dwingende en niet-dwingende paradigma's van verandering tot dominantie aan de zijde van voorstanders van verandering middels dwang en verlamming aan de zijde van hen die

Hoofdstuk 8 is een theoretisch intermezzo dat ingaat op de vragen die voortkwamen uit Hoofdstuk 7. De literatuur omtrent organisatie en facilitering van multi-stakeholder-onderhandelingsprocessen werd doorgesplit om uit te komen op een participatief onderhandelingsmodel dat de relatie tussen onderhandelingspraktijk in NRM en de (institutionele) rol van voorlichting belicht. Meerdere conceptuele en theoretische gebieden bleken cruciale dimensies van een participatief onderhandelingsmodel (of procesmethodologie) voor het institutionaliseren van voorlichting voor gebruik binnen NRM. Losstaande maar onderling verbonden gebieden versmolten en vormden zo de basis voor een dergelijk model aan de hand van de voorgaande theoretische inbreng (Hoofdstukken 4 en 6), inductieve ontdekkings aanleiding van de episodes, vele interacties met beoefenaars van voorlichting, academici en bemiddelingsstaf, alsook de analyse van bijbehorende actuele literatuur.

Hoofdstuk 9 blikt terug op momentopnames van de periode 2003 tot 2005 waarin onderzoek naar voorlichtingsbeleid naar een nationaal niveau werden getild. Mijn voornemen was om een nationale discussie op het gebied van voorlichting opnieuw aan te gaan door middel van het coördineren van een workshop in 2003 over nationaal voorlichtingsbeleid, een forum omtrent nationaal voorlichtingsbeleid in 2004, het vormen van een Netwerk van Voorlichtingsleiders op Staatsniveau (State Extension Leaders Network) in 2005 en een symposium over NRM-voorlichting in Toowoomba in 2005. Middels dit onderzoek werd duidelijk dat er enthousiasme leefde voor het beïnvloeden van voorlichtingsbeleid, al brachten de geplande activiteiten op zich niet de resultaten die waren verwacht. Over het algemeen waren de faciliteringsprocessen, interacties en overwegingen in lijn met (of geïnspireerd door) het triple-loop-onderhandelingsmodel. De manier waarop de werkgroep is geworden tot een autopoietisch, zelfstandig functionerend en reflexief ingebet systeem heeft mijn verwachtingen meer dan overtroffen. Desondanks bleef het een uitdaging om stakeholders zo ver te brengen dat ze expliciet de taal en concepten van triple-loop-onderhandeling omarmden en ervan gebruik gingen maken. Mijn zienswijze op en vertrouwen in het bepleiten van de waarde van het expliciet aanennen van een ‘onderhandelingsbenadering’ was een centrale hindernis voor het succesvol presenteren van het triple-loop-onderhandelingsmodel. Maar omgekeerd bleef het aannemen van een impliciete triple-loop-onderhandelingsbenadering, zonder expliciete gebruikenname van onderhandelingstaal, effectief voor het versterken van de positie van de groep en het ontwerpen van een groter onderhandelingsproces. Het triple-loop-onderhandelingsmodel bleek een werkbare kader voor het nadenken over en analyseren van interacties en het evalueren van de waarde van een onderhandelingsbenadering. Een herziene aanname daarbij was dat het triple-loop-onderhandelingsmodel mogelijk waarde heeft in de
vorm van een impliciete richtlijn waarlangs een facilitator richting kan geven (zonder gebruik te maken van onderhandelingsstaal) aan het bouwen van identiteit, gevoelens van onderlinge afhankelijkheid, autopoiese (zelf-organisatie) en het versterken van de positie van de groep voorafgaand aan vorderende onderhandelingen met anderen.

Hoofdstuk 10 biedt een weergave van de ontwikkeling en prestaties van het Nationaal Netwerk van Voorlichtingleiders (National Extension Leaders Network / SELN), bestaande uit voorlichtingleiders op het niveau van de Staat alsook van Regio en beïnvloeders vanuit geheel Australië, vanaf het ontstaan daarvan tot in het najaar van 2009. De uitkomsten van Hoofdstuk 9 en de steeds vorderende inzichten afkomstig uit voorgaande hoofdstukken was voor mij aanleiding om het voortouw te nemen in het initiëren van SELN als zijnde een ingebed systeem met een strategische positie te midden van het bredere Australische systeem van voorlichting / capaciteitsopbouw. De invalshoek van waaruit werd onderzocht was naar hoe een ingebed systeem van voorlichtingleiders en beïnvloeders zou kunnen bijdragen aan en invloed hebben op verbetering van coördinatie, samenwerking en uiteindelijk coherentie en aansluiting binnen het Australische systeem van voorlichting. Het voornaamste verschil hierin met voorgaande hoofdstukken was de impliciete toepassing van het triple-loop-onderhandelingsmodel zonder expliciet gebruik van onderhandelingsstaal. Het werd tevens toegepast binnen een homogene groep met een laag conflictniveau in voorbereiding op meer grootchale onderhandelingen met onderling uiteenlopende partijen. De eerste bijeenkomst van SELN was midden 2005, toen ook de identiteit en rol van de groep werden vastgesteld. Deze bijeenkomst baande de weg voor onderhandelen over de onderhandelingsbenadering en het proces door de begrenzingen van SELN vast te stellen en de strategische behoeften binnen de groep te identificeren. Tot aan najaar 2009 kwam SELN nog eens 14 keer bijeen. Al werd triple-loop-onderhandeling niet tijdens deze bijeenkomsten gepresenteerd, SELN was wel in staat om als een eendrachtige groep verder te ontwikkelen en om onderhandelingsactiviteiten op een reflexieve wijze verder vooruit te brengen.

De voornaamste prestaties van SELN zijn, onder meer:
* Nationaal overleg tussen leiders van de grootste investeerder in voorlichting binnen Australië, namelijk de Regeringen van Staten (State Governments).
* Een akkoord aan de zijde van State Government aangaande de SELN Voorlichtingsverklaring Verandering mogelijk maken in ruraal en regionaal Australië: de rol van voorlichting in het mogelijk maken van duurzame en productieve toekomst.
* Publicatie van een serie casussen van praktijksituaties met voorbeeldfunctie: Voorlichting werkt: casussen ter illustratie van de rol van voorlichting bij het mogelijk maken van verandering in ruraal Australië.
* Workshops met de Communicatiemanagers van de verschillende Corporaties op het gebied van Onderzoek en Ontwikkeling (Research and Development Corporations) en de ontwikkeling van projecten die van invloed zijn op de rol van voorlichting in het Onderzoek, Ontwikkeling en Voorlichting-model (Research Development and Extension model).

De SELN-ervaring was grotendeels een oefening in het effectief bouwen aan netwerk en identiteit, waarbij onderhandeling enigszins impliciet was inbegrepen. De facilitatietprocessen, interacties en overwegingen binnen deze onderzoeksepisode waren over het algemeen in lijn met het triple-loop-onderhandelingsmodel. Het voornaamste verschil van Hoofdstuk 10 ten opzichte van Hoofdstuk 9 is dat er in het merendeel van SELN-activiteiten, plannen of projecten geen gebruik werd gemaakt van onderhandelingstaal en -concepten. Een centrale conclusie was dat er aanzienlijke meervoudige ligt in het gebruik van het triple-loop- onderhandelingsmodel als impliciete richtlijn ter ondersteuning van de facilitering van multi-
stakeholder voorlichtingsbeleidonderhandelingen. De kracht en waarde van een op vrijwillige basis gestoelde, niet-gefinancierde en zichzelf organiserende groep, zoals SELN, in het behalen van hun doelen en beïnvloeden van verandering bleek heel positief wanneer de groep gebruik maakte van niet-confrontationale en reflexieve modellen van betrokkenheid. Door voorlichting te bezien als beleidsinstrument kwam de weg vrij om de identiteit van voorlichtingspraktijk, het beroep en de discipline te herkaderen van dat van een "toegevoegd" component aan het traditionele continuüm van onderzoek, ontwikkeling en voorlichting naar dat van een beleidsinstrument voor eigenstandig gebruik, dan wel in combinatie met andere beleidsinstrumenten. Overeenkomstig met de voorgaande conclusies bleek dat de taal van onderhandeling contraproducent en niet-confrontational kwam te functioneren als beleidsinstrument in het gebruik van 'onderhandelingsbenadering' om kwesties met uiteenlopende en conflictvormende standpunten aan te gaan. Leden van SELN erkenden de noodzaak voor onderhandeling maar verkozen liever een adaptieve benadering, met gebruik van formele en informele netwerken, in plaats van het implementeren van een geplande onderhandelingsevenement.

Hoofdstuk 11 gaat in op de onderzoeksvragen en biedt kernboodschappen en aanbevelingen voor verbetering in NRM-voorlichting in Queensland en voor voorlichtingsbeleid in geheel Australië. Onderzoek rondom de algemene onderzoeksvraag gaf aan dat de benaderingen die werden gebruikt door institutionele NRM-stakeholders in hun onderhandelen over probleemoplossing, zoals op het gebied van NRM-voorlichtingsbeleid, niet heel grondig waren en ook niet op één lijn zaten met contemporaine onderhandelingsmethodologieën. Onderhandelingsprocessen waren onderhevig aan het enthousiasme en de epistemologische neigingen van de personen met invloed of 'machtspelers' binnen een gegeven situatie. De bereidwilligheid en bekwamheid van stakeholders om bij te dragen aan het beslissen over de manier waarop beslissingen zullen worden onderhandeld waren beperkt en gevarieerd. Men kan stellen dat het voortduren van veelvuldige en overlappende initiatieven en wedijverende agenda’s een direct gevolg was van dit gebrek aan vermogen om te komen tot effectieve onderhandelingsprocessen. Onderling concurrerende memes binnen het gebied van 'NRM-voorlichting' (bijv. drijfveren, voorlichting, bekwamheid bouwen of kennisbeheer) overlapt elkaar en waren in feite vrij goed verenigbaar met voorlichting. Onderlinge verschillen kwamen grotendeels voort uit de organisatorische eenheden of institutionele groepen die achter deze verschillende entiteiten van kennis en praktijk staan. Anders nog dan een botsing van memes was het conflict in feite meer gerelateerd aan het gebrek aan zicht dat elke groep werd toebedeeld de memes van andere groepen, en institutionele barrières die de weg versperden voor effectief dialoog en meme (her)schikking. Institutionele blinde vlekken speelden een grote rol in het onvermogen van verschillende memes om te repliceren. De dialectische relatie tussen memes in het domein van 'niet-dwingende verandering en de manier waarop deze sociaal werden geconstrueerd leek sterk te worden beïnvloed door een institutionele omgeving die de voorkeur geeft aan de ontwikkeling van onderling wedijverende memes en de daaraan verbonden constructies. Zonder effectieve gereedschappen voor het organiseren en faciliteren van onderhandelingen tussen deze silos van geconstrueerde realiteit hebben beleidsinstrumenten zoals voorlichting, capaciteitsopbouw, of regulerende compliance niet de institutionele ruimte tobedeeld gekregen om openlijk te worden overwogen, onderhandeld en geïnstitutionaliseerd. Zoals ook blijkt in het uitblijven van goedkeuring van New Extension en de problematische uitkomsten van de Nationaal Voorlichtingsbeleid-Fora (National Extension Policy Forums), zijn er nieuwe modellen voor voorlichting nodig die ondersteuning bieden aan het bestaan, de legitimiteit en relevantie daarvan.
Deze dissertatie heeft de theorie omtrent multi-stakeholder-onderhandeling verder ontwikkeld middels een normatief model dat ondersteuning biedt aan het begrijpen, organiseren en faciliteren van multi-stakeholder-processen, met name waar het gaat om het onderhandelen over complexe, in elkaar verstrikte kwesties zoals voorlichtingsbeleid. Het model heeft zich ontwikkeld tot een epistemologische benadering die richting geeft aan het verkrijgen van inzicht naar de realiteiten waarin meervoudige (organisatorische) stakeholders, met hun onderling uiteenlopende agenda's, zich bevinden en die middels reflexieve processen van sociaal leren tracht te komen tot overeenstemming. Pas in de latere fases van dit onderzoek kwam het besef dat expliciete gebruikname van onderhandelingstaal problematisch kan zijn en mogelijk zelfs een hindernis kan betekenen bij overleg en onderhandeling over onderling conflicterende zienswijzen. Een meer ontvankelijke taal en conceptuele benadering voor het faciliteren en analyseren van multi-stakeholder-processen zou zijn het 'zoeken naar overeenstemming', waarmee de terminologie van triple-loop-onderhandeling iets verschuift naar dat van triple-loop-overeenstemming.'

Kernboodschap uit dit onderzoek zijn, onder meer:

a.i.1. Voorlichting in Queensland (en Australië) is zo goed als dood, in een staat van wanorde en zonder nationaal plan.
a.i.2. Professionals op het gebied van voorlichting worstelen met het ontwerpen en implementeren van multi-stakeholder-processen gericht op het verbeteren van voorlichtingsbeleid.
a.i.3. Triple-loop-onderhandeling is een nuttig model voor het mogelijk maken van veranderingen binnen voorlichtingsbeleid.
a.i.4. Een ingebouwd systeem van leiders (SELN) kan invloed uitoefenen op voorlichtingsbeleid binnen Australië.
a.i.5. Voorlichting beschouwen als een beleidsinstrument is een waardevolle manier om invulling te geven aan het ontwikkelen van voorlichtingsbeleid.

Aanbevelingen zijn gericht op het instutionaliseren van NRM-voorlichting in Queensland door gebruik te maken van triple-loop-overeenstemming als benadering bij initiatieven gericht op de ontwikkeling van een National Extension Framework voor Australië. Bij deze aanbevelingen zijn inbegrepen:

2. Deze bovengenoemde groep voorlichtingsleiders (bijv. SELN) dient een beoordeling van de effectiviteit van het voorlichtingsbeleidinstrument te verwezenlijken.
3. Deze groep voorlichtingsleiders (bijv. SELN) dient een werkgroep aan te stellen belast met het aanzwengelen van overleg en triple-loop-overeenstemming tussen ingebouwde systemen die deel uitmaken van de kern van het Australische voorlichtingssysteem.
4. Deze werkgroep dient steun te bemachtigen van Council of Australian Governments (CoAG) voor het ontwikkelen van een breder National Extension Framework voor Australië.

Verder behoort ook het ontwikkelen van een National Agreement for Extension and Capacity Building tot de aanbevelingen, met inbegrip van voorkeursfinanciering en beleidsregelingen voor de ontwikkeling van een Bemiddelings Organisatie (Intermediary Organisation) die zal helpen bij de implementatie van overeengekomen beleidskeuzes.

Dit alles is mogelijk verrassend, vooral bezien vanuit internationaal oogpunt waar het vaak ontbreekt aan een vergelijkbare mate van steun voor voorlichting in andere landen, of binnen
de reeks van niet-dwingende middelen tot verandering. Toch zien veel voorstanders van voorlichting in Australië meerwaarde in het bijdragen aan het vermogen van de voorlichtingsmeme om te repliceren.

Dit onderzoek heeft getracht om de bredere rol die voorlichting kan spelen in Queensland, Australië en daarbuiten te identificeren, met name om zo bij te dragen aan de mogelijkheid van verandering in sociale en biofysische systemen en, in bredere zin, als een model van dienstverlening dat duurzame landschappen, levensstijlen en levensonderhoud kan helpen waarborgen. Vanuit historisch oogpunt gezien is landbouwkundige voorlichting getuige geweest van grootschalige verbeteringen in voedselproductie en modernisering van landbouw en sociale systemen gericht het voorzien in de voedselbehoeften van een toenemende bevolking. Maar nu deze verwachtingen ten aanzien van landbouwkundige voorlichting zijn verwezenlijkt is het tij gekeerd en komen de gevolgen van ontwikkeling en exploitatie van bronnen aan het licht. De naargeestige problemen die we nu aantreffen zijn mogelijk onverwachte en inherent complexe sociale dilemma's, maar ze vereisen wel dringend actie als wij een duurzame toekomst willen zien te waarborgen.

Voorlichting dient om mensen kracht te geven en hen in staat te stellen om van zich te laten horen bij discussies en overwegingen op het gebied van menselijke crises zoals klimaatveranderingen, voedseltekorten en de druk van bevolkingstoename. Om bij te dragen aan de oplossing van dergelijke crises kan voorlichting worden ingezet als eigenstandig beleidsinstrument alsook als integrator, facilitator en bron van ondersteuning in combinatie met andere instrumenten. Voorlichting moet diens rechtmatige plek innemen als discipline die verandering mogelijk maakt door het 'overbruggen van grenzen' van de traditionele menselijke narratieve van economie, recht, management en wetenschap. Deze thesis heeft getracht om de reflexieve modellen te kenschetsen die voorlichtingsbeoefenaars en -supporters steun verlenen bij het aanpassen van hun praktijkbeoefening en het proactief beïnvloeden van voorlichtingsbeleid en de institutionalisering van dergelijke nieuwe 'grensoverschrijdende' rollen. Om te komen tot een veerkrachtige toekomst voor onze natuurlijke hulpbronnen en een duurzaam gebruik van de ecosystemen waarvan wij in essentie afhankelijk zijn moet het gewicht van NRM-overwegingen binnen voorlichting in gelijke mate worden beschouwd als de economische, sociale, wettelijke en wetenschappelijke aspecten van de menselijke ervaring. Vanuit het gezichtspunt van NRM is de kernrol van voorlichting het beïnvloeden van de vorming van een onderling netwerk van reflexieve stakeholders en van een wijze van onderling leren en onderhandelen dat deze traditionele narratieve omvat. Voorlichting heeft daarmee wel degelijk een rol in het verwezenlijken van waarlijk reflexieve besluitvorming in Australische, alsmede mondiale multi-stakeholder en interorganisatorische systemen van beheer die streven naar duurzame uitkomsten op het gebied van het beheer van natuurlijke hulpbronnen.
Abstract

Internationally, extension policy has been a support instrument used by governments and commercial interests for improving agricultural production for hundreds, if not thousands of years. The application of extension theory and practice to the achievement of natural resource management (NRM) outcomes is a more recent undertaking. This thesis seeks to understand the barriers and bottlenecks which prevented the implementation of extension policy by the Queensland State Government in Australia. In 1999, the Department of Natural Resources and Mines (DNR&M) undertook the development of an extension strategy and the identification of the role of extension amongst other policy instruments. However, despite the enormous efforts of a group of enthusiastic extension stakeholders, this strategy was not implemented. This thesis documents a learning and research journey inquiring into why this was so, and in the succeeding decade, why extension policy remained elusive. The ensuing search into the institutionalisation of extension policy was documented through an autoethnographic account of the author’s involvement in several NRM initiatives and projects from 2000 to 2010. Taking an action research approach, I investigated approaches to NRM extension through action, and grounded my findings within relevant literature. Following DNR&M’s failed extension strategy, investigations moved to negotiation practices amongst Queensland agencies and the challenges of instituting the ‘non-coercive’ extension policy instrument alongside other more coercive instruments aiming to achieve effective NRM outcomes. My actions and investigations then moved to considering approaches and mechanisms for negotiating extension policy at the national scale. National extension policy events and extension stakeholder networks across Australia were scrutinized. Learnings from my involvement in operationalising a network of extension leaders from each State of Australia helped bring to light broader recommendations on the institutionalisation of extension policy, and advice for extension policy for NRM outcomes at national and state levels. A key output from the research is the triple-loop-negotiation model which was developed through this grounded process of inquiry. This model is proposed as an underlying tool for operationalising research recommendations and identifying the role of the extension policy instrument and securing the institutional support for its application to achieve sustainable NRM. Through this journey, it has been seen that separation of extension policy from extension practice is problematic. Extension theory and practice need to include organisational change and negotiation as well as learning and network building models. This will enable extension to reflexively build as a discipline and policy instrument, as well as achieve desired outcomes in combination with other policy instruments.
Biosketch and Acknowledgements

Well, I am an Aussie (Australian) with ‘roots in the bush’, having been raised on a beef cattle property, and someone who wants to support and maintain the rurality of the wide Australian landscape and those who are caretakers of that wonderful land. While I live in the city of Brisbane, my work is helping the rural people of South East Queensland with their property management plans. This is the perfect balance for me. The reason that I am doing this research is that for the first 10 years of my career, as someone who ‘does extension’, the professional infrastructure and support for intellectual and career development seemed to be slowly fading away. It seemed to me that there was a widening gulf between the need for extension as a non-coercive professional support for landholders and the policy direction of agencies that purported to support these same landholders. These agencies increasingly were moving away from ‘doing extension’.

My interests in natural resource management (NRM) have been lifelong and were essentially spawned through the many long car trips that we made as a young family. I was exposed to Australia’s beautiful natural features from a young age and it was inevitable that my career would move towards the preservation of natural landscapes. My early academic forays into agriculture were simply a diversion to move toward NRM, as no specific courses of study in this field were available at the time. Working as a soil and land conservationist and property management planner for the Queensland Government highlighted to me the fact that many of the issues landholders were facing, and the reasons for their reluctance to ‘conserve’ natural resources, were social in nature, rather than purely technical. Almost 10 years into my career I took the plunge and went to Wageningen University to follow in the footsteps of other people who ‘did extension’ and were seeking answers to these social rather than just technical questions. People like Gus Hamilton and Jeff Coutts inspired me as their contact with Wageningen yielded significant gains for extension in Queensland. People like Frank Vanclay and Andrew Campbell were creating a club of extension professionals and Mark Payne and then Chrissie King added to the mix. This team of people seemed to be really adding value to extension in Australia, particularly with the initiation of APEN (the Australasian Pacific Extension Network). My time in Wageningen and the years afterwards have been very rewarding. My knowledge and practice of ‘doing extension’ was transformed, and meeting my wife, Anya, there changed my life. Working with this club of extension people who have been largely influenced by Professor Niels Röling has been a large part of this research. In fact, the main reason that I used autoethnography as my data collection methodology was my overwhelming perception that the evolution of extension was a story that was largely being played out through the actions of members in this Wageningen club. So, I felt it appropriate to immerse myself within the story and attempt to investigate, and in some ways steer, the storyline, and hopefully gain membership to the club.

I have been helped, supported and inspired by many people and organisations in the completion of this thesis. Firstly, I would like to thank the many people who say they ‘do extension’ who have contributed immeasurably to the twists, turns, highs and lows of this research journey. I would also like to acknowledge my supervisors, Professor Cees Leeuwis and Professor Frank Vanclay. I have been privileged to work under your supervision and to learn from your wisdom and insight. In particular, I would like to acknowledge my principal supervisor, Cees Leeuwis, who has provided detailed and thorough feedback to me throughout the course of this research. I have been influenced enormously by your writings and really do appreciate your efforts, Cees. I would also like to make special mention of the enormous support that Frank Vanclay has given me in making things happen, with extension
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