Achieving successful change in conflict over afforestation:
a comparative analysis

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Statement of originality

Except where otherwise indicated, this thesis is my own original work

Jacqueline Schirmer
23\textsuperscript{rd} December 2005
Acknowledgments

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Achieving successful change in conflict over afforestation: a comparative analysis

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Abstract

Tree plantations supply a rapidly growing proportion of global wood supplies, and rates of plantation establishment have risen rapidly in many countries in recent years. This afforestation has often been accompanied by conflict over the environmental, social and/or economic impacts of plantations, with disputes and concerns about afforestation documented in more than 35 countries.

Theories of response to social conflict commonly suggest it can be successfully addressed through implementation of more co-operative communication between parties to conflict. However, the literature suggests a broader range of actions are often used to respond to conflict over afforestation. Few studies have examined whether particular responses to conflict are associated with successful change in conflict, and under what circumstances.

This study examined two questions:

- What responses are associated with successful change in different types of afforestation conflict?
- To what extent are current theories on responding to conflict applicable to conflict over afforestation?

This study used narrative, discourse and media analysis within a comparative historical analysis framework to answer these questions. A medium-N comparative approach was chosen, comparing fourteen afforestation conflicts in two case study regions – eight in the Great Southern region of Western Australia, and six in County Leitrim in the Republic of Ireland. This approach allowed an in-depth understanding to be developed of each conflict, while still enabling multiple comparisons across and between the different conflicts and case study regions. The 14 conflicts were diverse in both their topics and the ways they were expressed and acted on, allowing comparison of the outcomes of particular conflict responses across different contexts. Multiple criteria were identified to evaluate whether conflicts had changed successfully or otherwise, allowing space for different definitions of ‘success’.

The results of the study suggest that, although implementation of more co-operative communication between conflict parties does facilitate change, it is neither necessary nor sufficient for achieving successful change in conflict over afforestation.

What is necessary and sufficient is the implementation of actions that address the substantive issues of conflict. This type of action was successful whether or not it was accompanied by improvement in communication or relationships between those involved in conflicts. Additionally, the mechanism by which actions were implemented
did not appear to affect whether conflict changed successfully, as long as the action resulted in demonstrable change in afforestation and plantation management. Conversely, implementation of improved communication in the absence of taking action to address substantive issues was not associated with successful change.

The results of the study have implications for general theories of conflict response, as well as for understanding conflict over afforestation. They suggest that theories of conflict response need to incorporate explicit analysis of the power and capability of groups involved in a conflict to implement the actions needed to address that conflict. This requires shifting from the functionalist understanding of conflict that currently underpins much conflict response theory, to interpretations of conflict that incorporate radical conflict perspectives. This will allow more realistic evaluation of the likelihood of successful change in conflict, and assist the implementation of conflict responses that operate at the scales necessary to successfully address substantive issues of conflict.
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<tr>
<td>AA/Advertiser</td>
<td>Albany Advertiser</td>
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<td>ACC</td>
<td>Albany City Council</td>
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<td>ACRDA</td>
<td>Albany Community Regional Development Alliance</td>
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<td>AFG</td>
<td>Australian Forest Growers</td>
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<td>APEC</td>
<td>Albany Plantation Export Company</td>
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<td>APFL</td>
<td>Albany Plantation Forest Company Pty Ltd</td>
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<tr>
<td>APT</td>
<td>Australian Plantation Timber</td>
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<tr>
<td>ASIC</td>
<td>Australian Securities and Investment Commission</td>
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<tr>
<td>ATO</td>
<td>Australian Tax Office</td>
</tr>
<tr>
<td>BTF</td>
<td>Bunnings Tree Farms</td>
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<td>CA</td>
<td>Comparative analysis</td>
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<tr>
<td>CALM</td>
<td>Department of Conservation and Land Management</td>
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<tr>
<td>CAP</td>
<td>Common Agricultural Policy</td>
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<td>CCA</td>
<td>Constant comparative analysis</td>
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<td>CCG</td>
<td>Blue Gum Aerial Spraying Consultative Group</td>
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<tr>
<td>CDA</td>
<td>Critical discourse analysis</td>
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<tr>
<td>CDE</td>
<td>Coalition for Denmark’s Environment</td>
</tr>
<tr>
<td>CHA</td>
<td>Comparative historical analysis</td>
</tr>
<tr>
<td>Co. Concerned farmers</td>
<td>Concerned Farmers and People of County Leitrim Again Private Forestry Organisation</td>
</tr>
<tr>
<td>DA</td>
<td>Discourse analysis</td>
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<tr>
<td>DE</td>
<td>Dail Eireann</td>
</tr>
<tr>
<td>DSC</td>
<td>Denmark Shire Council</td>
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<tr>
<td>EC</td>
<td>European Commission</td>
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<td>EDA</td>
<td>Event data analysis</td>
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<td>EEC</td>
<td>European Economic Community</td>
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<td>EHA</td>
<td>Event history analysis</td>
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<td>EIA</td>
<td>Environmental Impact Assessment</td>
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<td>EIS</td>
<td>Environmental Impact Statement</td>
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<td>EMS</td>
<td>Environmental Management Standard</td>
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<tr>
<td>ENGO</td>
<td>Environmental Non-Governmental Organisation</td>
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<tr>
<td>EPA</td>
<td>Environmental Protection Authority</td>
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<tr>
<td>ERS</td>
<td>Early Retirement Scheme</td>
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<td>ESA</td>
<td>Event structure analysis</td>
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<tr>
<td>EU</td>
<td>European Union</td>
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<tr>
<td>FAO</td>
<td>Food and Agriculture Organization of the United Nations</td>
</tr>
<tr>
<td>FESA</td>
<td>Fire and Emergency Services Authority</td>
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<tr>
<td>FSC</td>
<td>Forest Stewardship Council</td>
</tr>
<tr>
<td>GSDC</td>
<td>Great Southern Development Commission</td>
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<tr>
<td>GSGSTF</td>
<td>Great Southern Group for Smart Tree Farming</td>
</tr>
<tr>
<td>GSP</td>
<td>Great Southern Plantations</td>
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<tr>
<td>ICMSA</td>
<td>Irish Creamery Milk Supplier’s Association</td>
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1 Introduction

1.1 Introduction

Conflict over natural resource management is common worldwide. For any given resource, there are many different users and interest groups with different values, viewpoints, and knowledges of the resource. This inevitably gives rise to disagreement about the best way to use, transform, and manage natural resources.

The practice of afforestation is a case in point. The planting of stands of trees for production of timber and other products is advocated by many groups but has drawn considerable criticism from others, to the extent that even the definition of terms such as 'afforestation', 'plantation' and 'forestry' are points of contention.

1.2 Expansion of global afforestation in recent decades

Plantations\(^1\) supply a rapidly growing proportion of global wood supplies. While the world’s estimated 186.73 million hectares of plantations constituted only 5% of global forest cover in 2000, they supplied an estimated 35% of global roundwood supplies, forecast to rise to 44% by 2020 (FAO 2001).

Rates of afforestation\(^2\) have increased over the past three decades. While estimates made in different years are not directly comparable\(^3\), the FAO (2001) estimated that the global plantation estate expanded by 143.4 million ha between 1990 and 2000, compared to only 25.8 million ha between 1980 and 1990. This increasing rate of afforestation has occurred for a range of reasons, including increasing pressure to reduce logging of natural forests, and the quality and consistency of wood and paper products able to be produced from plantations (Cossalter and Pye-Smith 2003; Kanowski 2005).

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\(^1\) The FAO (2001) defined plantations as: ‘Forest stands established by planting or/and seeding in the process of afforestation or reforestation. They are either: (i) of introduced species (all planted stands), or (ii) intensively managed stands of indigenous species, which meet all the following criteria: one or two species at plantation, even age class, regular spacing.’ Note: No page number is provided for this reference as the online version of FAO (2001) does not have page numbering.

\(^2\) The FAO (2001) defined afforestation as: ‘Establishment of forest plantations on land that, until then, was not classified as forest. Implies a transformation from non-forest to forest.’

\(^3\) The comparability issues are due to differences in definitions used by the FAO when gathering data about plantations at different times (FAO 2001).
Plantations are being established in both developed and developing countries in all continents and regions, including Africa, Asia, Oceania, Europe, North and Central America and South America. In 2000, 73 countries had over 100,000 ha of plantation, and 19 countries had over one million ha (FAO 2001).

Although established in a wide range of cultures and environments, the species, purpose and ownership of afforestation take relatively similar forms worldwide. Plantations are usually established in monocultural stands, usually using species exotic to the location where they are being planted. A relatively small range of species comprise the vast majority of plantations worldwide. Most plantations are established for production of commercially saleable wood or non-wood products. Both government and private sector ownership of plantations is common (FAO 2001).

1.3 Conflict over afforestation

Afforestation has been accompanied in many regions by conflict over the social, economic and/or environmental impacts of establishing plantations:

Each year the area of fast-growing tree plantations in the world expands by around one million hectares. The planting of large areas of eucalypts, acacias, pines and poplars has sparked off bitter controversy ... Some claim plantations will destroy the environment and displace small farmers. Others say they will help protect natural forests and provide economic growth. Most of the public does not know what to believe. (Cossalter and Pye-Smith 2003: v)

The extent of conflict over afforestation is such that it has prompted publication of international reviews of contentious issues over which conflict commonly occurs. For example, Poore and Fries (1985) examined claims commonly made in a number of countries about the ecological impacts of eucalyptus, while Cossalter and Pye-Smith (2003) examined a wide range of claims made by different groups about the impacts of afforestation.

Conflict over afforestation has been recorded in most, if not all, regions in which the plantation estate has expanded in recent decades. In the course of reviewing literature

---

4 Australia, Brazil, Chile, China, India, Indonesia, Iran, Japan, Malaysia, New Zealand, Russian Federation, South Africa, Spain, Thailand, Turkey, Ukraine, United Kingdom, United States, and Vietnam.
for this study, instances of documented afforestation conflict were found in over 35 countries\(^5\), including nations as diverse as Ecuador, Finland, India, Thailand and the United States of America. Conflict over afforestation has been recorded in most, if not all, regions in which plantation estate has expanded in recent decades.

The concerns expressed about afforestation in different regions often include multiple issues related to the impact of afforestation on rural communities, on the economy, and on various parts of the surrounding physical environment. Perhaps surprisingly, topics of conflict over afforestation have often been similar across different countries and regions.

The first questions asked about conflict are often ‘what it is about?’ and ‘how serious is it?’ Figures 1.1 to 1.3 summarise common claims and counter claims made about the social, economic and environmental impacts of afforestation. These common topics of contention over afforestation have been drawn from literature studying perceptions of afforestation, and literature documenting conflicts. The list of claims covers the major topics of many afforestation conflicts, although it is certainly not exhaustive and other topics of contention may also occur over afforestation\(^6\).

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\(^5\) Appendix 1 provides details of references found to afforestation conflicts in different nations.

\(^6\) Figures 1.1 to 1.3 do not indicate the proportion of people expressing particular views, as few studies have examined this in detail, and those that have are not generally comparable. For example, a number of studies have examined attitudes to afforestation and forestry in Ireland. However, they have examined different regions – Clinch et al. (1999) surveyed a representative sample of the Irish population, including both urban and rural areas, O’Leary et al. (2000) compared attitudes in County Wicklow and County Leitrim, while Kearney and O’Connor (1993) compared attitudes in County Mayo and County Wicklow. As well as these differences in regions studied, each study asked different questions, and the results cannot be easily compared, or conclusions drawn about likely attitudes of particular groups from reviewing the different studies. Studies undertaken in other countries have similar comparability problems.
Figure 1-1 Commonly reported perceptions of the social impacts of afforestation

<table>
<thead>
<tr>
<th>Positive perceptions of afforestation</th>
<th>Negative perceptions of afforestation</th>
</tr>
</thead>
<tbody>
<tr>
<td>Afforestation provides a dignified exit from farming for landowners (e.g. farmers) unable to maintain economic viability, by providing a land user willing to purchase land at a reasonable price</td>
<td>Afforestation of agricultural land leads to decline in rural population through the voluntary or forced removal of previous land users</td>
</tr>
<tr>
<td>Afforestation can improve local/regional service provision by providing new employment opportunities and spending in local regions</td>
<td>Afforestation leads to population decline and this results in loss of local services (e.g. schools, local shops, local clubs) in rural regions</td>
</tr>
<tr>
<td>Afforestation can revitalise declining rural communities by providing new industry and employment opportunities</td>
<td>Afforestation leads to loss of local culture and sense of identity was a result of changes to land use, population and/or landscape</td>
</tr>
<tr>
<td>Afforestation provides increased quantity of employment in a region</td>
<td>Afforestation and plantation management provide less employment per hectare than other alternative land uses, and/or employment is located outside local regions</td>
</tr>
<tr>
<td>Afforestation and plantation management provide increased quality of employment compared to alternatives</td>
<td>Afforestation provides decreased quality of employment compared to alternatives</td>
</tr>
<tr>
<td>Well managed afforestation presents no greater risk to health and safety than other land uses, and may be safer than other land uses in terms of fire risk, chemical use and other risks</td>
<td>Afforestation and plantation management create increased health and safety risks for local residents, including fire risk, road safety issues, and health risks from chemical use, tree pollen or other management practices</td>
</tr>
</tbody>
</table>

The common perceptions presented in Figures 1-1 to 1-3 have been drawn from Ryle (1969); Martin (1970); Land Conservation Council (1981); Aldwell (1984); Nature Conservancy Council (1986); Bainbridge et al. (1987); Brotherton and Devall (1988); Cohen (1993); Selby and Petajisto (1995); Carrere and Lohmann (1996); CFPLM (1989); Frawley (1998); Ni Dhubhain and Wall (1998); Cohen (1999); WRM (1999); Elands et al. (2000); Garcia Perez and Groome (2000); O’Leary and McCormack (2000); Kearney (2001); Tonts et al. (2001); Lang (2002); Schirmer (2002); Barlow and Cocklin (2003); Cossalter and Pye-Smith (2003); and Kanowski (2005).
Perceptions of economic impacts of afforestation on rural regions

<table>
<thead>
<tr>
<th>Positive perceptions of afforestation</th>
<th>Negative perceptions of afforestation</th>
</tr>
</thead>
<tbody>
<tr>
<td>Well managed plantations can enhance the landscape and rural amenity and hence <strong>increase tourism</strong></td>
<td>Afforestation impacts negatively on sensitive landscapes and vistas, and may damage cultural artefacts, and hence can <strong>adversely impact tourism</strong></td>
</tr>
<tr>
<td><strong>Afforestation increases land prices</strong> by creating increased demand for agricultural land, creating <strong>higher returns for those wanting to sell land</strong></td>
<td><strong>Afforestation increases land prices, making it harder for farmers to expand their properties to remain viable</strong></td>
</tr>
<tr>
<td>Afforestation <strong>can increase property value</strong> by providing improved environmental outcomes and a valuable crop</td>
<td><strong>Afforestation decreases land prices of nearby properties, as there is low demand for land bordering a plantation</strong></td>
</tr>
<tr>
<td><strong>Afforestation of part of an agricultural property provides farm and rural land management benefits</strong> and a useful form of farm enterprise diversification, and can usefully replace agriculture where excess or unsustainable production is occurring</td>
<td><strong>Afforestation takes up land needed for other uses such as agriculture, and reduces people’s ability to live/subsist off the land by reducing their access for various agricultural/subsistence activities</strong></td>
</tr>
<tr>
<td><strong>Afforestation is a sustainable land use that may have positive impacts</strong> for the land it is established on and local catchments, through improving soil stability, improving water quality and/or improving wildlife habitat</td>
<td><strong>Afforestation can adversely affect neighbouring or nearby land users via management activities such as run-off of chemicals, spread of weeds from plantations to nearby land, erosion, changing water quality/quantity and/or providing habitat for feral animals that can damage crops or farmed animals on nearby properties</strong></td>
</tr>
</tbody>
</table>
### Table 1-3: Commonly reported perceptions of the environmental impacts of afforestation

<table>
<thead>
<tr>
<th>Positive perceptions of afforestation</th>
<th>Negative perceptions of afforestation</th>
</tr>
</thead>
<tbody>
<tr>
<td>Afforestation can provide environmental benefits if undertaken on agricultural land, where it can improve biodiversity and soil/water quality</td>
<td>Afforestation may take place in areas where it involves removal of natural ecosystems such as forests, wetlands and woodland, resulting in reduced wildlife habitat and loss of species</td>
</tr>
<tr>
<td>Less chemicals are used during afforestation and plantation management than are typically applied for alternative land uses</td>
<td>Chemicals used in afforestation and plantation management may cause environmental harm both on-site and off-site</td>
</tr>
<tr>
<td>Plantations may provide improved habitat for some fauna species, can act as a ‘buffer’ between forest areas and cleared land, and/or as wildlife corridors, depending on the species planted and the management regime</td>
<td>Plantations provide little/no fauna habitat due to their monocultural design and the management regimes used</td>
</tr>
<tr>
<td>Plantations can improve soil structure, quantity and/or quality</td>
<td>Plantations may have adverse impact on soil, via increasing soil acidity, soil erosion and/or adversely change soil structure and nutrients</td>
</tr>
<tr>
<td>Plantations can improve water quality by reducing erosion and run-off of chemicals and waterways</td>
<td>Plantations can reduce water quality through acidification, erosion and run-off of chemicals into waterways</td>
</tr>
<tr>
<td>Plantations can reduce water table levels in salinity prone areas</td>
<td>Plantations reduce water flows in catchments compared to other land uses</td>
</tr>
<tr>
<td>Plantation species exotic to the regions in which they are established may act as weeds and spread into natural ecosystems</td>
<td></td>
</tr>
</tbody>
</table>
The second question, ‘how serious is conflict over afforestation?’, is harder to answer. Certainly, a brief exploration of the literature will uncover instances in which protests against afforestation have occurred. Conflict over afforestation is such a well-known phenomenon that it is sometimes referred to as an almost inevitable ‘by-product’ of afforestation (e.g. Cossalter and Pye-Smith 2003).

However, conflicts over afforestation take a variety of forms, some of which involve high profile, intense conflict while others do not, as can be seen from the 14 conflicts analysed in Chapters 5 and 6 of this study. This diversity points to a need for examination of the reasons different afforestation conflicts reach different levels of intensity – or ‘seriousness’.

1.4 Research needs

While the literature available, although not comprehensive, provides a reasonable understanding of the common topics and widespread nature of afforestation conflicts, the same cannot be said for other key questions commonly asked about conflict. When does afforestation conflict arise, and why? What causes conflict to increase and decrease in intensity? Who is involved? How are they involved? What actions do different groups take to act on conflict? What effects do these actions have? And perhaps most importantly, what actions can be taken to shift conflict from hostile exchanges between disputing groups to a productive interaction that results in positive change for all involved?

Almost no studies have systematically documented the processes and actions taken as part of conflict, or evaluated how they have changed the course of conflict. Some historical studies include a description of conflict as part of an overall history of the plantation sector, or of land use politics (see for example Ryle 1969; Neeson 1991); others describe conflict as part of a polemic commentary intended to form part of that conflict (e.g. Tompkins 1989, O’Brien 1990). A number of studies have examined what conflicting perceptions are held or discourses used regarding afforestation (e.g. Ni Dhubhain and Wall 1998; O’Leary et al. 2000; Petheram et al. 2000; Elands et al. 2001). However, none of these have sought to develop theories of appropriate response to afforestation conflict.
Many authors recommend particular responses to conflict – but almost invariably, recommendations are not followed by explicit evaluation of whether implementation of the recommended response is successful or not (e.g. Soutar 1986; Ni Dhubhain and Wall 1998; Elands et al. 2000). The type of response recommended can usually be directly traced to the assumptions made about the nature and causes of conflict. For example, authors who begin with a belief that conflict over afforestation is caused by misunderstanding are likely to recommend information dissemination or improved communication as a response to conflict (e.g. Ryle 1969; Fairgray 1983; Sinclair 1990), while those who believe conflict results from institutional failure are likely to recommend instituting improved planning, policies, regulations, land tenure etc. (e.g. An Taisce 1990; Lang 2002). This is discussed further in Chapter 3.

As a result, while there have been many documented efforts to address conflict over afforestation, previous studies have not systematically examined whether the actions taken to respond to afforestation conflict have been successful, or even what constitutes a successful response to conflict – a limitation not only of the afforestation literature, but of conflict literature in general (Dukes 1996):

The practical concern with how best to develop generic knowledge about what works in international conflict resolution leads to a perhaps surprising conclusion: there is a critical need to develop theory … (Stern and Druckman 2000: 60)

Given the widespread occurrence of conflict over afforestation, the wide-ranging topics over which conflict occurs, and the contradictory advice given on how to try to address conflict, there is a clear need to examine in more detail the success or otherwise of different responses to different types of afforestation conflict.

1.5 Research questions

This study explored two key questions. Phrased simply, these were:

- What types of conflict response are associated with successful change in afforestation conflict?
- To what extent are current theories of optimal response to conflict applicable to conflict over afforestation?
Successfully examining these two questions required reviewing common theories of conflict response, and developing appropriate measures of successful change in conflict situations, then using these measures to examine cases of conflict over afforestation.

The structure of the thesis reflects the process that was used to address the two bore study questions. The work is founded in reviews of general theories of response to conflict and of measures of successful change in conflict situations (Chapter 2), and of thinking and experience in these arenas specific to afforestation (Chapter 3). These reviews provided the basis for elaborating the study questions and identifying a methodology by which case study research could address the questions (Chapter 4).

The elaborated research questions were then examined in two case study regions: the Great Southern region of south-west Western Australia, and County Leitrim in north-west Ireland. In each of these regions, different conflicts occurring over afforestation were identified, and the ways the conflict changed over time were analysed. Explanations for changes observed in the conflicts were then sought, with a focus on whether particular responses to conflict were associated with successful change in conflict.

The case studies undertaken do not provide a global ‘answer’ to the two study questions for all situations and types of conflict. They do, however, provide a useful beginning to answering these questions based on the case studies examined, and the results can inform further development of theory on successfully addressing conflict.

1.6 Definitions

The definitions used in this thesis have been selected to try to best describe the underlying concepts behind terms, although as Dukes (1996: 186) points out, ‘One set of definitions will not change the meaning of its terms to others...’

Appendix 2 provides a detailed discussion of the following terms used throughout the thesis, and why the following definitions were chosen for each:

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8 Chapter 4 describes how and why these regions were selected.
• Afforestation: the establishment of stands of trees on land which previously had few or no trees growing on it

• Plantation: a stand of trees artificially established by humans, eg by planting seedlings, for the purposes of commercial wood production

• Conflict: underlying disagreement causing concerns and/or disputes over afforestation, usually evidenced by protracted disagreement between, or expression of concern by, individuals or groups (after Yarn 1999)

• Concern: any statement which expresses doubt, concern, disagreement or strong interest about how afforestation is, has been, or should be undertaken (after Blair 1982)

• Dispute: an active disagreement between groups over specific actions or proposals (after Yarn 1999)

• Conflict response: any action taken to attempt to respond to or act on unproductive conflict. Used in preference to alternative terms such as conflict ‘resolution’, ‘management’, ‘transformation’, ‘intervention’ all of which are commonly interpreted as referring to a narrower range of actions.

1.7 Thesis structure

The following chapters provide:

• a review of current theories on the role and functions of conflict and effective responses to conflict (Chapter 2), and literature on conflict over afforestation (Chapter 3);

• discussion of the methods and methodology used to examine conflict over afforestation in the two case studies (Chapter 4);

• results of the study in three chapters:

  > Results of the Great Southern (Chapter 5) and Co. Leitrim (Chapter 6) case studies. For each case study region, a brief history of afforestation and associated conflict is given. This is followed by a structured history of each
individual conflict identified as occurring over afforestation in the region, and analysis of whether and when the conflict changed positively or negatively using the criteria set out in the study methodology; and

- comparative analysis of the 14 individual conflicts analysed in Chapters 5 and 6. Systematic comparative analysis was used to uncover the similarities and differences between conflicts, and how and why particular responses to conflict were successful in some situations and not in others (Chapter 7);

- discussion of the implications of the results for responding to conflict over afforestation, and for theories of conflict response (Chapter 8); and

- key conclusions of the study (Chapter 9).
2 Social conflict and conflict response strategies

2.1 Introduction

This chapter reviews (a) different theories about the nature of conflict and its purpose, and (b) the different conflict response theories that have evolved from different understandings of conflict. The general theories of conflict response identified in this chapter are compared to theories of afforestation conflict in Chapter 3.

Theories about how to respond to conflict have been developed in many arenas, often isolated from each other:

... there is no established and coherent body of conflict theory ... There is instead a rather messy mosaic of theory, of practical advice which passes for theory, and of wishful thinking ... (Dukes 1996: 166)

Because of the eclectic nature of conflict response theories, the literature drawn on is similarly broad. This chapter initially reviews theories on the roles, purpose and causes of conflict and discussing the ways conflict is described and typologised. This then underpins a review of different theories on responding to conflict and examination of the ways different theorists have evaluated the success of different conflict responses.

2.2 Understanding social conflict

Theoretical and applied researchers have attempted to understand a range of aspects of social conflict. These include the role conflict plays in human societies, the factors that cause conflict, different types of conflict that occur, and typical conflict processes. These different approaches to understanding conflict inform the ways people choose to respond to conflict (Donohue and Kolt 1992). They are briefly reviewed here, drawing on literature from the fields of sociology, social psychology, international relations, political science, and natural resource management/environmental studies (NRM). This broad field is drawn on for two reasons. Firstly, many argue that there is a need for an integrated field of conflict theory that crosses the various disciplines that examine social

9 Often referred to by terms such as ‘conflict resolution’, ‘conflict management’, and ‘conflict transformation’.  

12
conflict. Secondly, literature on NRM conflict – the type of conflict of most relevance to this thesis – has drawn from all of the broad theories of conflict presented here. It is therefore important to understand the viewpoints underlying these different conceptualisations of conflict and responses to conflict, to better understand the range of ways people recommend responding to NRM conflict.

However, while a broad range of literature is examined, some conflict fields are not drawn on – in particular, game theoretic and socio-biological approaches to understanding conflict. Game theoretic approaches have been rejected by many conflict theorists (e.g. Bacharach and Lawler 1981; Burton 1990; Fisher 1990; Tidwell 1998)\(^{11}\). Greenhalgh and Chapman (1995: 171) extend this rejection to laboratory studies of conflict in general. Nor is there considerable review of literature on violent international conflict, as afforestation conflict does not generally take this form. The examination of interpersonal conflict literature is limited to psychological and communicative aspects of conflicts which may apply to both interpersonal and inter-group conflict. Other aspects of interpersonal conflict theory are not examined in detail as they tend to focus on conflict between two individuals, rather than between larger numbers of individuals or between individuals who have formed into groups, as is the case with most conflicts over afforestation.

\(^{10}\) Burton (1990), Vasquez (1995) and Tillett (1999) all discuss the need for more explicit interdisciplinarity within the field of conflict theory.

\(^{11}\) Game theoretic approaches, grounded in neoclassical economic theory, attempt to predict outcomes of conflict using models based on a series of 'rules', or assumptions, about human behaviour. The outcomes of the models are determined by the assumptions used. Chief amongst these assumptions is that humans engage in rational decision-making (see for example Glazer and Konrad 2003), an assumption that 'has now been largely rejected within social science' (Fisher 1990: 75). The assumptions used in game theory have not been shown to have a significant correlation to decisions made in complex conflicts in the field, as even recent expansions in the scope of the assumptions used cannot reflect the wide range of values and decision making criteria used in social conflict (for examples of expanded assumptions, see Fraser and Hipel 1984; Shields et al. 1999; Smithson and Foddy 1999; Noakes et al. 2003). Similarly, while socio-biological explanations of conflict may be useful, they have not been used to develop many approaches to responding to conflict, perhaps because of their focus on examining the functionality of competition/cooperation as part of evolutionary and biological processes (see for example van der Dennen and Falger 1990).
2.2.1 The role and purpose of conflict

The role and purpose of social conflict has been widely debated by social theorists, and particularly by sociologists. Several authors have categorised different theories on the role and purpose of conflict (e.g. Bingham 1986; Tidwell 1998).

Bernard’s (1983) typology is used here, as it is consistent with many other categorisations, but expands on the ‘consensus versus conflict’ debate that characterises many other categorisations.

Bernard (1983) argued that there are four broad theories on the role and nature of conflict. Each is discussed briefly below. The fourth has influenced most modern theories of conflict response, and is discussed in more detail than the others.  

2.2.1.1 Conservative consensus theories

These theories, argued by Bernard (1983: 21) to include the theories of Aristotle, Aquinas and Locke, argue that ‘contemporary consensual societies [are] characterized by full and free agreements based on man’s consensual nature. Conflict ... must therefore be attributed to “deviant” subgroups.’ This leads to the argument that such deviance requires control or suppression.

2.2.1.2 Sociological consensus theories

These theories, expressed by theorists including Hobbes, Durkheim and Parsons, ‘use consensus terminology in describing society but hold a less benign, more conflictual view of human nature’ (Bernard 1983: viii). This leads to a view that society needs to have in place processes that can ‘control’ the tendency for conflict inherent in human nature. Conflict is viewed as an unwanted ‘disease’ requiring eradication. In this view, it is imperative to conserve existing societal structures, which act to contain and control.

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12 Note that not all conflict theorists who have contributed to the four ‘types’ of conflict theory are discussed below, as this is intended to be a ‘broad brush’ overview of conflict perspectives. In addition, the ways in which a number of other social theorists have incorporated conflict into a broader theoretical understanding of society – for example, social constructionist theory, systems theory or risk theory – are not examined in-depth (see Hellström [2001] for discussion of some of these). This is because theories developed specifically about social conflict had more relevance to the applied context of evaluating the effectiveness of different responses to afforestation conflict than theories whose primary purpose was not to uncover the nature of social conflict.
humanity’s conflictual nature (Coser 1956). The central question for these theorists has been how much consensus is necessary to achieve social order, and how to use institutions and regulations to enforce and ensure order (Berger 1998). The sociological consensus approach underpins much work on responding to conflict via the development of social institutions.

Both this and the conservative consensus perspective have been criticised as supporting and strengthening the position of those holding power, by dismissing those who challenge existing authority as being in some way aberrant and requiring control (Coser 1956).

2.2.1.3 Radical conflict theories

Bernard argues that theorists such as Plato, Rousseau and Marx use conflict terminology when discussing society but see human nature as basically benign and consensual. In other words, in these views ‘society’ and social structures, such as the socio-economic means of production, are believed to have twisted or corrupted an essentially consensual human nature. It follows that if the societal structures causing conflict are changed appropriately, the essentially consensual nature of human nature can be expressed. According to this viewpoint, if the social structural causes of conflict are removed some conflict may still be expressed at an interpersonal or intergroup level, but fundamental conflicts that drive social revolutions would stop. These theories have a focus on the role of distribution of power, particularly economic and political power.

2.2.1.4 Functional conflict theories

Functional conflict theories, referred to by Bernard as ‘sociological conflict theory’, argue that conflict plays a vital and functional role in human society. As a result, these theorists argue that the focus of conflict research should be on the ways conflict is expressed and acted on, rather than the existence of conflict itself (Simmel 1955; Coser 1956). This leads to a shift to examining the best ways of channelling conflict, rather than ways of stopping expression of disagreement:

Specific forms of conflict are functional to society because they permit these motivations to be expressed without destroying the society itself ... From this point of view one does not really
explore the sources of these conflicts but examines the methods by which they can be played out and resolved without [damage] ... (Bernard 1983: 132)

A range of social functions of conflict have been identified, including (Simmel 1955; Coser 1956; Worchel et al. 1993):

- Establishing and identifying groups and societies – the ‘group-binding’ function;
- Maintaining relationships within groups by allowing group members to express hostility and ‘clear the air’ without having to withdraw from the group altogether;
- Helping individuals and groups achieve goals not otherwise achievable;
- Creating cohesion within a group by directing hostility towards other, outside, groups;
- Establishing relationships between groups that may not have existed before; and
- Development of new norms, or re-establishment of old norms, that provide structures for the expression of conflict.

It has also been argued that conflict allows groups to compare strength, and that this may help deter further conflict by allowing different groups to establish an understanding of their relative power. However, this ‘deterrence’ theory has been criticised by those who believe shows of strength may lead to a ‘conflict spiral’ in which conflict continually increases in intensity (Pruitt et al. 1993).

Various implications flow from this perspective. Three in particular are important for this study. If a functionalist perspective is taken (Dahrendorf 1969; Deutsch 1973; Bernard 1983):

- The absence of conflict can no longer be seen as inherently desirable, or an indicator of positive relationships, as absence of conflict may be an indicator of a lack of healthy social function;
• All parties involved in a conflict must necessarily be viewed as 'legitimate', i.e. having a right to be involved, rather than some parties being labelled legitimate and others illegitimate; and

• The focus of responses to conflict should not be to eliminate or prevent conflict, but to find ways of making it 'productive', or having more positive social functions.

Most cooperative responses to conflict (discussed below) are based on the functional conflict perspective, whether explicitly or implicitly (Kriesberg 1995; Walker and Daniels 1997), as is much of the social psychological literature examining conflict (see for example Fisher 1990; Donohue and Kolt 1992; Rubin et al. 1994).

2.2.2 Types of conflict

Social conflict has been typologised in many ways, and for various purposes. Descriptive typologies variously categorise conflict by the topic of conflict (e.g. marital conflict, resource management conflict); the number of parties involved; type of parties involved (e.g. individuals, groups or nations); geographic boundaries, and/or the cause of conflict (e.g. Coombs and Avrunin 1988; Fisher 1990; and Delli Priscoli 1997).

Many afforestation conflicts would be classified as forms of environmental/NRM conflict, a type of conflict involving geographically embedded relations between the social and natural worlds which is often argued to have a range of unique characteristics compared to other conflicts (Buckles and Rusnak 1999). Daniels and Walker (1997), Oprotow and Weiss (2000) and Nie (2003) suggest that environmental conflict generally involves a combination of large number of stakeholders, the interpretation of scientific knowledge, issues of considerable complexity, and clashes of stakeholders and institutions with diverse world views and values. In addition, the parties involved may not be trained in managing or interacting in a conflict situation. This stands in contrast to simpler types of conflict such as labour wage bargaining processes, in which the interests/values of different parties are known, relatively few parties are involved, and many of the participants are experienced in dispute processes (Wondolleck and Yaffee 2000). Tillett (1999: 181) argues environmental conflict is additionally unique because it ‘... often involves the possibility of irreversible environmental effects.’
Many different causes of environmental conflict have been suggested by different authors (e.g. Crowfoot and Wondolleck 1990a: 6). Environmental conflicts occur at scales from the interpersonal to the international, may involve few or many parties, and range from site-specific disputes to global issues (Buckles and Rusnak 1999). In other words, environmental conflict encompasses a broad range of conflict types – almost all of those identified in the various typologies that can be made of conflict, perhaps with the exception of some forms of inter-personal conflict. As such, it is clear that conflict theories developed in other fields can inform understanding of environmental conflict.

However, there is debate about whether lessons learned about one type of social conflict can be usefully applied to other types. Kriesberg (1995: 89) argues that 'Conflicts differ in many ways, and most of these differences are variations along several dimensions. ... In principle, therefore, drawing insights about resolving one kind of conflict can be usefully applied to other kinds of conflict.' Fisher (1990) disagrees, arguing that it is dangerous to apply the results of analyses of conflict occurring at one level, such as the inter-personal, to another level such as inter-group conflict.

Rather than attempt to choose a particular side in this debate, one of the goals of this study was to understand the implications of differences between different afforestation conflicts, and the extent to which particular responses to conflict were effective when used as part of these different conflicts.

2.2.3 Causes and triggers of conflict

As well as the type of conflict, the different causes/triggers and factors affecting progress of conflict may influence the effectiveness of responses to conflict. The hypothesised causes and triggers of conflict vary depending on the theoretical perspective they have developed from, including whether conflict can be understood objectively or subjectively, and the relationship between conflict and human nature.

There is considerable debate over whether conflict is ‘subjective’ or ‘objective’:

The objectivists hold that there are certain events, behaviours or situations that will create conflict. They would further argue that regardless of what people might think, if these conditions exist, then conflict must exist ... For the subjectivists, conflict is in the perceptions of the parties in conflict. (Tidwell 1998: 34-35)
A related debate occurs between those who believe conflict is inherent in human nature, and those who believe it is contingent on particular events or triggers. Some theorists, such as Burton, now argue that conflict behaviour ‘depends upon both inherent and contingent factors...’ (Tidwell 1998: 41). This approach is followed throughout this study.

Throughout this study, I take the perspective that while conflict can only be known as a subjective phenomenon, ‘objective’ conditions may be associated with occurrence of conflict. This provides room for both subjective and objective perspectives, and for both human nature and external events/triggers to play important roles in conflict processes.

Consequently, the theoretical basis adopted in this study is quite catholic, an approach taken deliberately to allow a wide range of factors potentially affecting conflict to be identified and analysed when examining the success or otherwise of responses used to afforestation conflict.

The following causes and triggers of conflict have been suggested by a number of authors, and are discussed in the following sections:

- Competition for scarce resources;
- Unfulfilled needs;
- Differences in discourses (also called frames or worldviews);
- Misunderstanding;
- Lack of appropriate institutional frameworks;
- A range of external social and environmental influences; and/or
- A mix of factors that can only be understood in context.

13 While a more specific group of drivers of natural resource conflict have been identified by Nie (2003) – including policy design and frames, and the sacred and spiritual importance of place - most specific categorisations such as Nie’s can be grouped into one of more of the six categories above.
2.2.3.1 *Competition for scarce resources*

Conflict may be triggered when different groups want control of the same resource. The resource may be intangible, e.g. power, attention, or privilege; or tangible, e.g. land, water, or physical objects. This type of conflict is often shaped by the different ways human identity and values are intrinsically and iteratively related to different resources (Carnevale 1995; Buckles and Rusnak 1999; Hirsch *et al.* 1999).

2.2.3.2 *Unfulfilled needs*

Conflict may occur when human needs – which include the need for respect, dignity and opportunity, as well as for physical survival - are not being met. This perspective, based on needs theory, argues that the unfulfilled needs must be met for conflict to end (Burton 1995).\(^{14}\)

2.2.3.3 *Differences in discourse*

Conflict may be the result of differing perspectives, worldviews, values and/or interests, which result in groups framing particular issues in mutually exclusive ways.

This theory is often expressed as people having a clash of ‘goals’ ‘interests’ or ‘values’, or sometimes ‘worldviews’, ‘cultures’, ‘emotions’ or ‘symbolisms’ (Vining 1992; Buckles and Rusnak 1999).\(^{15}\)

2.2.3.4 *Misunderstanding*

Conflict is sometimes argued to be the result of misunderstanding (see for example Deutsch 1973). This implies that there is some ‘... objective reality, over which people could agree, if only they perceived things correctly’ (Tidwell 1998: 81).

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\(^{14}\) The term ‘needs’ is sometimes defined synonymously with the terms ‘values’ and ‘interests’. A range of definitions of all three terms exist (Northrup 1989, Rubin *et al.* 1994). Burton (1990) defines needs as universal motivations and requirements of humans, values as characteristics of particular cultures and communities, and interests as the aspirations of individuals and groups. He argues that interests are negotiable and amenable to reframing, while values and needs are not.

\(^{15}\) As discussed above, a range of definitions exist for many of these terms which often overlap. The existence of many definitions has led some to argue that the differences between the concepts is a matter of terminology, and that it is not possible to argue which have more impact on human behaviour (Bernard 1983: 209).
Critics of this perspective argue that different people have legitimately different interpretations of the same phenomenon, none of which can necessarily be argued to be the ‘truth’, or the ‘objective reality’ of a particular phenomenon (Tidwell 1998).

2.2.3.5 Lack of appropriate institutional frameworks

Conflict may result from a lack of appropriate institutions, e.g. a lack of secure resource tenure, appropriate regulatory frameworks, or a lack of implementation of existing regulations (Wondolleck 1988; Hirsch et al. 1999; Bridge 2000). Some institutional frameworks may act to promote conflict more than others.

2.2.3.6 Causes of conflict need to be understood in context

Many argue that causes of conflict can only be understood by examining the context in which they arose and their subsequent development (Whittaker 1999). There is considerable debate over the extent to which understanding of conflict can be generalised across different situations, versus the importance of understanding the contexts of individual conflicts. However, most agree that understanding the history of conflict and the context it occurred in – including the different perspectives on the reasons for the way conflict was enacted – is essential to understanding the course of any conflict (e.g. Polzer et al. 1995; Berger 1998: 365; Tidwell 1998: 107).

2.2.3.7 External social and environmental influences

Conflict may be more likely to occur under particular conditions, such as particular socio-economic, policy, and resource management conditions. The psychological and societal conditions may also have a significant bearing.\(^\text{16}\)

\(^{16}\) Rubin et al. (1994), for example, found that social psychological conditions that encourage conflict include, amongst others: periods of rapidly expanding achievement; ambiguity about relative power between groups; zero-sum thinking in which there is a belief that one party can only gain if the other loses; and availability of leadership. Grant (1990) and Pruitt (1995) found that the type of response people have to similar conditions will depend on factors such as their mood, level of empathy, and the extent to which they regard others as individuals or as unindividuated representatives of an opposing group.

Hellström (1996) and Hellström and Rytilä (1998) found that higher intensity forest conflicts were associated with rapid changes in the ways forests were used, rapid social change, a lack of common interests between different groups (in particular an isolated forestry profession), slow implementation of new policy, and broader socio-economic changes.
Responses to natural resource conflict can be frustrated by the constraints of social systems within which conflicts are embedded (Buckles and Rusnak 1999). Some authors have explicitly linked the emergence of local or intra-national conflicts over resources to national or international drivers, including tensions between national and local laws or customs, or global economic cycles (see for example Palmer and Smardon 1989; Bush and Opp 1999: 193; Mushakoji 2001). The physical environment in which conflict occurs may also be a key factor:

Analyses of conflict emanating from the social sciences too often assume that the inception and resolution of conflict take place solely within the sphere of human social relations. The role of physical and ecological processes in precipitating or exacerbating conflicts over interests among different actors have been relatively underexplored. (Sneddon et al. 2002: 667)

2.2.4 Understanding conflict processes and content

The success of a response to conflict may depend on the intensity of stage of development a conflict is in. The research of, amongst others, Deutsch (1973), Pruitt et al. (1993) and Kriesberg (1995) has developed considerable knowledge of conflict processes. They have focussed on factors affecting whether a conflict escalates – i.e. whether conflict increases in size or intensity – or deescalates, including how the decision of a group to act unilaterally affects conflict intensity.

There are a number of models of conflict escalation\(^1\). Donohue and Kolt (1992) provide a useful categorisation of conflict escalation:

- Level 1: No conflict
- Level 2: Latent conflict, in which at least one person perceives a conflict but takes no action
- Level 3: Problems to solve. Participants remain focussed on problems.
- Level 4: Dispute, in which there is a needs-centred conflict
- Level 5: Help – the dispute has reached a stage where external assistance is requested to help solve it
- Level 6: Fight or flight. Parties must decide either to actively fight or to escape the situation
- Level 7: Intractable, where the conflict itself becomes subsumed into needs and values of those involved.

\(^1\) See Burton (1990), Fisher (1990: Ch 7) or Rubin et al. (1994) for a discussion of the ‘deterrence’ and ‘escalation’ models. These are not discussed further here as they are usually discussed in the context of violent intra- or inter-national conflicts, a type of conflict not examined in this thesis.
Conflicts may not move unidirectionally through these types of stages (Kriesberg 1995). The study of factors affecting conflict escalation tends to focus on why conflicts deescalate, a focus which can lead to an emphasis on stopping conflict, rather than on evaluating whether stopping conflict is appropriate or satisfactory to the parties involved. Hence other approaches to examining the process of conflict may be more useful for informing choice of appropriate conflict responses.

Walker and Daniels (1997) describe social conflict as having a substantive aspect, a procedural aspect, and a relationship aspect. Hellström (2001) defined substantive aspects as the specific issues over which conflict is expressed, and procedural aspects as the level of conflict intensity and how it is affected by actions taken in a conflict. Delli Priscoli (1997), however, defined procedural aspects simply as the processes used to address conflict. Delli Priscoli (1997: 72) refers to relationship aspects as the psychological aspects of a conflict – 'how one feels, how one is treated or conditions for ongoing relationships'.

This approach goes beyond the functionalist approach to examining conflict, in that it focuses not just on the processes used to address conflict as important issues of consideration when examining conflict, but also on the substantive issues of conflict and relationships of those involved. It suggests that conflict response theories should address all three aspects of conflict.

2.2.4.1 The role of power in conflict processes

There are a number of theoretical perspectives on the nature, expression and roles of power in social conflict. These are not reviewed in detail here, but some key differences in perspectives on power are highlighted, as these influence the type of conflict responses believed to be most effective and/or appropriate.

Power is defined here as the capacity of an individual or group to achieve their desired outcomes, both through direct action on others, and through the ability to structure how others are able to act or respond (Ramirez 1999)\(^\text{18}\). Power comes not only from direct

\(^{18}\) Discussions of the role and nature of power are many and varied. Here, a very broad definition of 'power' is given to try to encompass as broad a range of definitions as possible.
ability to act on others, but also the power of norms, such as ‘beliefs about what constitutes a just or fair distribution’ of resources (Polzer et al. 1995: 124-125).

The role of power is often examined in the conflict literature in terms of (a) types of power, (b) relative power required for conflict to be resolved, and (c) strategies for altering power relationships between conflicting parties.

Various ‘types’ of power relevant to conflict have been theorised. Power relationships between groups have been explored in terms of how different groups perceive their level of dependence on each other, their ability to affect each other’s behaviour, and their ability to sanction or punish each other. Unresolved theoretical debates include disagreement over whether power should be considered ‘zero-sum’, in which gain of power by one party requires loss of power by another, or ‘variable-sum’, in which power gain by one party does not necessarily imply loss of power by another. A party’s ‘level’ of power is largely dependent on the perceptions of other parties, and therefore on the tactics used to argue or present an image of power (Bacharach and Lawler 1981).

A number of theorists have proposed that parties to a conflict are more likely to reach an agreement over that conflict if the parties have relatively equal power (Lawler and Yoon 1995). As a result, a conflict response strategy sometimes recommended is to encourage ‘ripening’ of the conflict — to encourage processes that lead to parties achieving relatively equalised power — if parties are believed to have relatively unequal power (Bacharach and Lawler 1981; Burton 1990; Doran 1995).

A range of strategies have been proposed by which particular parties to conflict can increase their power, from use of protests and demonstrations, to improving group organisations, knowledge and skills to lobby and communicate effectively. This increase in power is generally conceptualised as achieving an increase in power relative to other parties involved in the conflict (e.g. Nelson et al. 1990; Wondolleek et al. 1996; Buckles and Rusnak 1999; Chenier et al. 1999).

2.2.5 Implications of different understandings of social conflict

Given that so many distinctions have been made between conflicts of different types, with different causes and triggers, levels of complexity and processes by which it is
expressed, it follows that a range of responses might be appropriate for different types of conflict.

However, as is discussed in detail below, the responses recommended to conflict have been remarkably generic across different types of conflict. While different conceptualisations about the role and purpose of conflict clearly give rise to differing recommendations for responding to conflict, differentiation of response based on the more specific features of individual conflicts is relatively uncommon.
2.3 Responding to conflict

The rest of this chapter reviews research on responding to conflict. As discussed previously, a conflict response is defined as any attempt to provide a space for different parties to express and act upon disagreement – what Coser (1956) referred to as conflict ‘safety valve’ mechanisms that allow conflict to be enacted in as ‘productive’, or beneficial, a way as possible.

Theories about the social role of conflict have often evolved as part of overarching ‘grand theories’ aiming to explain all societal relations. Theories of conflict response, however, tend to fall in the realm of ‘middle range’ social theory developed to explain a particular phenomena or event. Many middle range theories (as well as ‘grander’ theory) are criticised for not sufficiently specifying when, how, by what mechanisms and under what conditions the theory is argued to hold (Rueschmeyer 2003: 328). This is certainly true of much theory about responding to conflict.

Many actions can be included under the umbrella term of ‘conflict responses’, ranging from development of norms about fairness, equality, honesty and non-violence, to third-party judgments by courts and arbitrators, to outright war (Deutsch 1973). The types of responses recommended have changed in recent decades, with increasing advocacy of the use of ‘cooperative’ conflict responses (described further below)\(^{19}\).

Rather than provide a history of the development of different conflict responses, different types of response are discussed in turn below.

This requires a typology of conflict response. A range of approaches to categorising conflict responses have been suggested (Tidwell 1998). They share one key characteristic: almost all categorise the response used by identifying the process used to respond to conflict\(^{20}\). Perhaps the only exception is Burton and Dukes (1990), who

\(^{19}\) For a review of the evolution of different conflict responses, see Bingham (1986) or Bartos and Wehr (2002).

\(^{20}\) For example, Schellenger (1996, cited in Tidwell 1998), suggested conflict responses fell into the categories of coercion, negotiation and bargaining, adjudication, mediation and arbitration. Social psychologists have argued there are three primary types of conflict response: contending, in which one party tries to impose their will on another party; yielding in which one party lowers their aspirations and settles for an outcome they would not have preferred; and problem solving, in which conflicting parties
proposed three categories of conflict response that were based on the type of conflict being responded to. This categorisation reflects the primary focus of conflict response literature: almost without exception, research into responding to conflict in recent decades has focussed on the processes used to act on conflict.

Given that the majority of literature is structured around the process used for conflict response, this type of categorisation is used below, followed by a discussion of how this focus limits the scope of conflict response literature.

I use a categorisation based in part on Fisher (1990) and Bartos and Wehr (2002), but extend their categories to encompass a broader range of conflict responses:

- **Denial responses**, in which parties to a conflict do not necessarily act directly on each other’s claims or meet face to face but instead use other means, or no means, to try to address conflict;
- **Adversarial responses**, based on deciding which parties have legitimate and illegitimate claims and hence finding ‘winners’ and ‘losers’ of conflict;
- **Cooperative responses**, in which all parties are considered to have legitimate claims, and the focus is on addressing the needs, interests and values of the conflicting parties using a cooperative approach; and
- **Transformation responses**, in which underlying causes of conflict are addressed rather than focussing only on the issues apparent in a specific dispute or concern that represents an expression of conflict.

Within each of these categories, a variety of responses are discussed. Although different responses are discussed separately, it should be recognised that a combination of denial, adversarial and/or cooperative responses may be used in a single conflict.

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work together to find a mutually acceptable outcome (Rubin et al. 1994). Ury et al. (1988) proposed a relatively similar categorisation, except that they interpreted yielding more broadly to include any ‘rights-based’ system used to determine who wins/loses conflict. Bartos and Wehr (2002) argue that responses to conflict lie on a continuum of coercion to co-operation between groups, in which a range of coercive or cooperative actions are used by different groups to try to achieve particular outcomes. They identify actions such as ‘persuading’ and ‘rewarding’ as representing an intermediate approach between coercion and cooperation.
2.4 Denying conflict

Denial responses involve attempts to deny the existence or legitimacy of a conflict. Denial responses have been researched in varying fields including psychology, evolutionary biology, and social theory (Opotow and Weiss 2000).

The most obvious denial response is one in which a group denies that a conflict exists. Others include denigrating opponents, in an attempt to de-legitimise their claims, and hence the conflict or their part in it (Opotow and Weiss 2000). This is often associated with a form of 'naive realism', where one party tends to:

... dismiss the beliefs of others as subjective and biased, and to hold firmly to the conviction that only [their] own views are found in reason, principle, and evidence, whereas the other side is extreme, wilful, wicked, and immoral. (Robinson 1995: 189)

In denial responses, direct communication between conflicting parties is often minimal or non-existent. Information dissemination may be used in an attempt to prove one party right and another wrong, often with a stated goal of proving that there is 'no need' for conflict as disagreement is based on misunderstanding, not a 'real' difference of views (e.g. O’Brien 1990).

2.5 Adversarial responses to conflict

Adversarial systems are 'entrenched in many western, and also many non-western, legal, political and business worlds' (Brown et al. 1995: 19). They shape not only formal responses to conflict, but, some argue, the ways people communicate in many Western societies (Dukes 1996).

Adversarial responses are characterised by being processes in which the 'winners' and 'losers' of conflict are determined either by direct confrontation, or through presenting cases to an independent third party such as a court, which makes a binding decision²¹.

In general, adversarial processes draw on an understanding of conflict that is most closely related to sociological consensus theories, in which the tendency of humans towards conflict must be controlled using laws and regulations.

²¹ Large-scale violent confrontations are not discussed further here as they have not formed part of afforestation conflicts.
2.5.1 Judicial and related processes

Perhaps the most common example of an adversarial system is the rights-based judicial system. In this system, disputing parties present their case in court, where a judge or jury decides who is right and wrong based on rights enshrined in legislation and precedent. Rights enshrined in law and precedent also form the basis of some types of arbitration, in which an independent third party makes a binding decision based on the law, and the use of ombudsmen to defend citizen’s rights under the law. These processes rely on a system of rights enshrined in legislation.

Key criticisms of judicial and related processes include (Tidwell 1998; Cloke 2001):

- Legal processes are designed to resolve points of law, not relationship and communication problems that may be the ultimate cause of some conflicts;
- The judicial process is not always equitable or fair - for example not all have the same level of access to legal assistance; and
- The laws and precedents on which judicial and related processes are based may not have the scope to address all issues, and/or may have been designed in such a way that they benefit some groups at the expense of others.

Burton and Dukes (1990), however, argue that it is possible that judicial institutions will change and adapt so they overcome some of these limitations.

2.5.2 Bargaining

Disputing parties may enter a bargaining process, in which their goal is to maximise their own gains, often at the expense of other parties involved (Bacharach and Lawler 1981; Fraser and Hipel 1984). This involves a ‘win-lose’ model of conflict in which different groups compete for limited resources, and conflict outcomes are characterised as necessarily involving compromise.

22 Sometimes the term ‘bargaining’ is used more broadly to refer to a range of processes which may be either adversarial or cooperative. Here it is used only to refer to adversarial processes where one party gains at the expense of another. Note that the definition used here is considerably different to the ‘integrative bargaining’ discussed by Fisher et al. (1992), which is a cooperative conflict response.
Theories of bargaining responses – which are often located within game theoretic approaches to conflict (Lawler and Yoon 1995) – have been criticised on many fronts. They often dismiss the influence of emotions on negotiations, preferring instead to rely on assumptions of logical/rational behaviour. The emphasis on obtaining concessions and maximising personal utility in bargaining theory is often associated with assumptions of extreme differences and/or opposition between groups, an assumption challenged by many who advocate cooperative responses (Fisher et al. 1992; Robinson 1995). As a result, many believe that this type of conflict response ‘engenders mutual views that emphasize blame and hostility, and thus increase conflict’ (Robinson 1995: 189).

The field of international negotiation has drawn on a range of theoretical perspectives that, according to Fisher (1990: 163-4), have broadened the assumptions underlying bargaining. Discussing the work of Sawyer and Guetzkow (1965), he states that these new approaches to negotiations go beyond the ‘zero sum’ assumptions of classic bargaining theory to incorporate some role for misperceptions and misunderstanding between groups. This allows bargaining theory to incorporate more complex conflict responses.

2.5.3 General criticisms of adversarial approaches

Adversarial processes have been criticised on many fronts, but particularly for their underlying emphasis on competition:

The goal of adversarial proceedings is not to develop understanding, not to find constructive solutions, and not even to discover the truth. The goal ... is to win. (Dukes 1996: 130)

Other criticisms include that adversarial processes often (Dukes 1996):

- involve undue costs and time to reach an outcome;
- provide for only limited participation by interested/affected groups;
- may have undesirable broader effects;
- may be unsuitable to addressing particular problems; and
encourages development of diverging, rather than converging, perceptions of issues.\footnote{A key example is scientific information, which in adversarial processes is generally used as a tool of persuasion to support an argument (Ozawa 1996). This tends to lead to the production of competing sets of scientific knowledge by different parties to a conflict, each claiming to represent the truth.}

In environmental conflicts, in many cases use of the judicial process has not achieved the changes in environmental management desired, even when environmentalists won their court cases (e.g. Ross 1999).

2.6 Cooperative responses to conflict

'Cooperative' responses to conflict are processes in which different parties work together to develop conflict outcomes that meet the interests, values and/or needs of all. The theory underlying use of cooperative responses is that solutions can be found that satisfy all parties without unjustly disadvantaging any, by using flexible, collaborative processes (Deutsch 1973; Donohue and Kolt 1992; Opotow and Weiss 2001). Cooperative responses draw primarily on the functionalist approach to conflict, seeking to achieve 'constructive' conflict outcomes that maximise the positive functions of conflict.

Cooperative responses are argued to have a range of benefits when compared to denial or adversarial responses, including (Bacharach and Lawler 1981; Dukes 1996; Cloke 2001):

- A greater likelihood of success because all parties agree to an outcome, instead of having an outcome imposed on them;
- An emphasis on building more positive relationships between conflicting groups, whereas adversarial processes are argued to drive groups further apart; and
- Greater potential for finding creative and innovative solutions to conflicts.

Cooperative responses are argued to achieve this by blurring intergroup boundaries, encouraging perceived common ground, helping groups to have empathy for each other,
and encouraging groups to believe their goals can be met without contention (Pruitt 1995: 108-109). Tools such as scientific information are developed co-operatively, rather than competitively.\textsuperscript{24}

Theories of cooperative conflict response have developed in a variety of fields, including organizational development and management, international relations, and alternative dispute resolution; and in response to a range of types of conflict, including environmental conflict (Bingham 1986; Baruch Bush 1995; Tidwell 1998).

Cooperative responses are referred to by various names including, amongst others, alternative dispute resolution, collaboration, collaborative problem solving, conciliation, consensus building, consultation, med-arb, mediation, negotiation, participatory management, policy dialogue, regulatory negotiation (reg-neg), and system design (Bingham 1986; Crowfoot and Wondolleck 1990a,b; Baruch Bush 1995; Fisher 1995; Dukes 1996; Bingham 1999; Resolve Inc 1999). There are variously defined similarities and differences between these terms, with a wide range of overlapping definitions. The term mediation, for example, is defined in so many ways that it has been used 'to describe almost any third-party activity short of armed intervention' (Burton and Dukes 1990: 25).

Despite the diversity of labels given to cooperative responses, all are based on similar underlying beliefs: that creative solutions can be found to conflict that allow the needs and wants of all parties to be met; that conflicting parties can develop trust and shared understanding through repeated positive interaction; and that specific forms of communication can facilitate the achievement of positive change in conflict.

\textsuperscript{24} In cooperative responses, the role of scientific and other information is generally conceptualised as supporting, rather than directive (Ozawa 1996). Ideally, in cooperative responses the conflicting parties agree on the types of information needed to assist their discussions, and how that information should be collected. This can then allow the gathering of ‘shared’ information which all parties trust. For this to assist a cooperative process, all parties should have equal access to information (Susskind and Cruikshank 1987; Wondolleck 1988; Crowfoot and Wondolleck 1990b; Fisher et al. 1999; Carpenter and Kennedy 2001).
Rather than discuss different ‘types’ of cooperative response, which entails considerable repetition given the overlapping definitions used, the two main types of cooperative process advocated in the literature are described below:

- Reframing and problem solving approaches; and
- Participatory decision making.

This is followed by discussion of common criticisms of cooperative responses.

2.6.1 Cooperative communication: reframing and problem-solving

The central role of communication in successfully addressing conflict has been noted by authors from many different disciplines (e.g. Briggs 1996a,b; Ochs et al. 1996), with two related communicative approaches commonly discussed:

- Techniques to help groups reframe conflict; and
- Problem solving techniques.

'Reframing' refers to encouraging parties who have different views of an issue to build a different, shared understanding of an issue (Kolb and Babbit 1995; Vraneski and Richter 2002). The concept of reframing is based on the belief that underlying interests, values and/or needs of parties in a conflict are not necessarily in opposition, but seem as though they are because they are communicated and interpreted in ways that make them appear mutually exclusive. Development of a joint, shared interpretation of the interests, needs, and issues of a conflict is argued to lead to development of new and innovative solutions to the conflict (Kriesberg 1989). For example, reframing of water conflicts in the Middle-East as ‘an environmental inter-generational problem, rather than a problem of allocating a fixed resource between two parties’ has led in some cases to a shift from

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25 There are many studies focussing on the details of how co-operative responses should be undertaken. For example, a considerable literature examines and debates the role and purpose of third parties such as mediators – should they be partial or impartial, advisory or directive, expert or non-expert? How should third parties intervene in conflict? This debate is not examined here, with the underlying goals and concepts of different types of co-operatives focussed on instead. See De Bono (1985); Burton and Dukes (1990); Fisher (1990); Rubin et al. (1994); Kolb and Babbit (1995); Dukes (1996); Tillett (1999); Bartos and Wehr (2002); Billikopf-Encina (2002) for an overview of the debate on the role of third parties.
fighting for limited water allocations to development of technical solutions assisting in managing demand for water (Arlosoroff 2002; Chatterji et al. 2002).

This approach is underpinned by psychological theories of framing, in which individuals and groups are argued to develop different understandings of events or concepts because they use different interpretive frames. In general, 'problem solving' refers to conflict responses involving some type of 'joint effort to find a mutually acceptable solution' to a conflict (Rubin et al. 1994: 169). Similarly to reframing approaches, problem solving processes are based on an assumption that the interests of conflicting parties are not totally opposed, and that establishment of improved communication and trust between parties will lead to identification of actions that meet each party's interests and goals without disadvantaging other parties. This approach has sometimes been called, simplistically, a 'win-win' approach.

Problem solving approaches go by many names, including interest-based bargaining, integrated bargaining, integrative solutions, controlled communication, and collaborative approaches, amongst others, and are discussed in a wide range of literature (e.g. Burton 1990; Crowfoot and Wondolleck 1990b; Fisher 1990; Fisher et al. 1992; Rubin et al. 1994; Delli Priscolli 1997; Wondolleck and Yaffee 2000).

In general, reframing and problem solving approaches involve some or all of (Wondolleck 1988; Burton and Dukes 1990; Tableman 1990; Donohue and Kolt 1992; Wondolleck and Yaffee 2000):

- Breaking down the overt issues of the conflict to uncover underlying issues and interests. This involves reframing a conflict so it is communicated in a way that does not involve 'zero-sum' interests and positions, often referred to as interest based' rather than 'position based' communication;

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26 Relationships between conflict responses and the ways in which a conflict is framed have been found in research ranging from game-based experiments, where participants' responses to the same issues have been found to be different depending on how those issues are described or 'framed', to field-based research (Coombs and Avrunin 1988).
• Face to face interaction of parties involved in the conflict. Psychological research indicates that this works better than other forms of communication to establish trust and honest communication;

• Use of facilitator/s to assist the process; and

• Analytical interactions in which participants aim to generate alternative options to meet the interests of different parties without unduly disadvantaging any party.

Examples of reframing/problem solving approaches include the ‘controlled communication workshops’ developed by Burton in the 1960s (Burton 1990, 1995), where representatives of nations and regions in conflict were brought together to undertake a series of exercises to help them break down their own conceptions of reality, and to sensitise them to the realities faced by other groups in the conflict. These have also been termed ‘reality reconstruction’ workshops. T-group Resolution is another, relatively similar approach. ‘Track Two’ diplomacy involves using informal, rather than formal channels to try to create a space in which participants can negotiate based on interests rather than publicly stated positions (Burton and Dukes 1990; Fisher 1995). ‘Interactive management’ makes explicit use of decision support tools such as linear programming to assist the problem solving process (Burton and Dukes 1990).

Most, if not all, advocates of reframing/problem solving advocate that any conflict solutions must be achieved by consensus:

... consensus-based problem-solving builds trust because people can question assumptions; it avoids dominance by one organization; and it results in collaborative work that produces more sophisticated solutions than the “hall lobbying” of the legislative process. (Nelson 1990: 119)

Donohue and Kolt (1992) emphasise that for problem solving to be successful, an appropriate range of alternative solutions to issues involved in the conflict must be identified, rather than focusing on only one or two solutions; the pros and cons of different alternatives must be adequately explored; and the eventual ‘solution’ must include a detailed proposal agreeing how it will be implemented. The time required to participate in these processes can create difficulties for participants, as can achieving appropriate representation, developing the skills of both facilitators and participants to
take part, and acquiring appropriate information (Bardwell 1990; Nelson 1990; Fisher 2001).

Specific criticisms of reframing and problem solving approaches include concerns that they may be driven by a belief in some single, unvarying objective 'reality' which can be revealed by clearing away misperceptions (Hunter 1989). Most advocates of reframing approaches would disagree with this interpretation, arguing that development of shared perceptions between some groups should not be equated with belief in an 'objective' reality.

Mitchell and Banks (1996), cited in Bartos and Wehr 2002) found that reframing achieved in settings such as workshops, which take participants away from the normal settings of conflict, may be lost when the conflict situation is re-entered. Conflict participants not involved in the reframing processes may not agree to conflict outcomes agreed in the processes (Schwartz 1989).

Agnew (1989: 41) believes the reframing perspective focuses on 'discursive dissimilarity' while ignoring other conditions giving rise to conflict – resulting ultimately in a continuation of conflict. Agnew argues that only 'by changing the conditions that create intractability (practices, interests, stakes, goals, etc.)' can a successful conflict outcome be achieved. Supporters of these approaches argue that this is, in fact, exactly what reframing and problem-solving processes achieve. Thorson (1989: 5) emphasises that those who support reframing do not believe conflicts are located in language alone:

Rather ... we discuss and analyze conflicts only through language; therefore, when we find a conflict that appears resistant to resolution, we might want to examine the way in which it is framed and described.

2.6.2 Participatory approaches

Over recent decades, there has been increasing advocacy of what are commonly called participatory approaches to decision making. Broadly speaking, participatory processes are any process in which people potentially affected by or interested in a particular issue are included in decision-making processes about that issue. Participation may occur at various levels, from tokenistic forms of consultation in which people's views are sought
but do not necessarily influence decision making, to full collaborative management of resources, in which decisions are made by consensus between all stakeholders in an issue.

There is considerable debate about what constitutes ‘legitimate’ participation, with many criticisms of consultation-style participatory processes (Dukes 1996). Walker and Daniels (1997: 29) argue that consultation approaches often follow ‘... a “3 ‘I’ Model”: inform, invite, and ignore.’ Wondolleck (1988: 175) explained why consultation was initially problematic in the US Forest Service:

Although official Forest Service directives now require that field staff listen to the public and keep it informed, these directives do not explain what the field staff should do with the input once they have acquired it.

The use of 3 ‘I’-style consultation has exacerbated conflict in some instances, and is viewed by many as equivalent to the information dissemination strategies discussed under ‘denial’ conflict responses – in other words, this type of consultation is not a ‘cooperative’ conflict response. It is not discussed further here, with the more collaborative end of the participatory spectrum focussed on instead.

Collaborative participatory processes are defined here as any participatory process involving shared decision-making between groups. Their purpose is generally to develop processes that create a decision making space allowing productive dialogue between groups who are often in disagreement (Daniels and Walker 1997; Tsuchiya 1997).

Both collaborative participatory processes and reframing/problem solving aim to develop creative, shared solutions to problems, via inclusive and representative processes, although they may use different terminology to describe these processes27 (Wondolleck and Yaffee 2000).

27 The literature on collaborative participatory literature does not generally refer to ‘reframing’ or ‘problem solving’, instead discussing these concepts using terminology that emphasises the importance of ensuring all voices/issues are heard, based on a premise that conflict arises from exclusion of particular voices/interests from management processes, and can be addressed by developing processes that involve all voices and interests (e.g. Daniels and Walker 1997; Yus 2001).
However, collaborative participatory approaches differ in some respects from other cooperative responses to conflict. They may be implemented in situations where no overt conflict has occurred, as well as those where it has. They aim to involve all groups with an interest in the issues, not just those who have become overtly involved in conflicts, and they may address any management issues, not just those over which there is conflict (Tillett 1999; Wondolleck and Yaffee 2000).

Some authors believe other differences also exist. Delli Priscoli (1997: 62) believes cooperative conflict responses aim to aggregate interests and achieve agreement, while collaborative participatory processes focus on ‘articulating interests, building citizenship and creating what many commentators call a civic space between the public and private.’ However, many conflict theorists would argue that co-operative conflict responses move beyond a simplistic focus on achieving agreement, thus having many parallels with collaborative participatory approaches.

Some concerns have been expressed that collaborative participatory processes have the potential to exacerbate conflict, particularly if they use mechanisms such as public meetings which are attended only by those with highly opposed views and not by others with less conflicting perspectives (e.g. Palmer and Smardon 1989). Burton and Dukes (1990) argue that participatory processes can be ‘hijacked’ by interest groups, leading to decisions that have an ill-founded legitimacy. Advocates of participatory approaches respond to such criticisms by emphasising the need to use appropriate forums and genuine inclusiveness to ensure success28.

2.6.3 Criticisms of co-operative responses

Several criticisms have been made of cooperative responses to conflict, based on both their underlying concepts of conflict, and on the methods and processes used to try to implement them.

A prominent concern is that some cooperative solutions are presented as generic ‘cure-alls’. Tidwell (1998) argues that popular conflict resolution publications such as De

28 For example, Hislop and Twery (2001) explicitly designed a decision framework aimed at ensuring appropriate participatory forums and community inclusion occurred in forest sector decision making.
Bono (1985) and Fisher et al. (1992) provide generic, ‘routinised’ conflict solutions based on a simplistic ‘win-win’ approach. He argues that this trivialises many conflicts by assuming similar responses can be applied to all, instead of recognising that different responses are needed to different conflicts, particularly conflicts occurring in cultures other than the Western societies these approaches have typically been advocated in.

An often associated criticism is that cooperative responses do not necessarily address underlying systemic causes of conflict (Amy 1987; Burton and Dukes 1990; Tidwell 1998; Cloke 2001). A cooperative conflict response may occur at a scale too small to be able to address the underlying socio-economic factors causing the conflict, such as national or international legal systems or economic pressures. This perspective shifts emphasis towards integrating the radical conflict theorist perspective on conflict with the functionalist approach that has dominated development of cooperative conflict responses. It lends itself to a call for the transformational conflict responses described in the next section (e.g. Dukes 1996).

Cooperative responses are often based on an argument that conflicts do not actually involve irreconcilable interests, values or needs. However, this may not always be the case. In many conflicts unfulfilled or irreconcilable needs, interests or values may exist that need to be meaningfully addressed (Burton 1995). The reframing approach has the potential to trivialise or cover up the real needs of some groups in these situations.

Conflicts may also involve conflicting realities, rather than conflicting interests within a shared reality, raising the potential that these realities will not be amenable to reframing without a significant amount of psychological or sociological disruption and distress (Hunter 1989). Frohock (1989: 24) further questions whether a shared framing of an issue can occur in a society whose background values enshrine the right to hold, and encourage development of, diverse and different perspectives.

Northrup (1989: 56) argues that cooperative responses rely on an underlying assumption that ‘in general parties are able to handle conflict and the resolution process in a rational manner, estimating costs and benefits of various outcomes’. If this assumption of rationality does not hold, the cooperative responses may not be successful. Frohock (1989) believes that instead of assuming a universal rationality, conflicts need to be
explained by examining how individuals ‘... arrive at different conclusions on contrary
though locally rational rules and criteria.’

A major debate about the outcomes of cooperative responses to conflict revolves around
the potential of cooperative responses to empower or disempower groups. Those who
advocate cooperative approaches believe they can empower disadvantaged groups.
Those who criticise them believe that powerful parties may be able to dominate
discussions and negotiations in cooperative approaches (e.g. Amy 1987; Burton and
Dukes 1990; Baruch Bush 1995; Dukes 1996; Sidaway 1997; Cloke 2001):

How do we know, even in petty conflicts, whether we are silencing the disempowered or
achieving a temporary peace by suppressing someone’s desire for justice? How can we be sure
we are not promoting peace to reinforce an unfair status quo or petty tyranny? What do we do
when we discover that our efforts at settlement have turned into a form of suppression? (Cloke
2001: 21)

Some researchers have found that cooperative responses have been used to distract
parties from other significant issues; and to label some parties as legitimate or otherwise
based on whether they participate in the process (Amy 1987; Modavi 1996). Co-
operative approaches have also, some argue, acted to ‘privatise’ justice in some
instances by removing decision-making from public institutions such as courts, with
subsequent reduction in consideration of the wider public interest, and in transparency
of decision making (Baruch Bush 1995).

As well as these concerns, there are practical concerns about the ability of participants to
contribute time and resources, and to develop the skills needed for successful
cooperative processes (Dukes 1996; Wondolleck et al. 1996).

The criticisms of cooperative approaches are many. They do, however, have their own
limitations. Dukes (1996) argues that criticisms of cooperative conflict responses often
suffer from over-generalisation and exaggeration not supported by evidence; from
stereotyping of processes and participants in them, for example the characterisation of

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29 Cloke (2001) goes on to argue that third parties should often aim to equalise the power held by different
parties in a conflict to a point where a fair settlement is possible, while Ramirez (1999) recommends
ensuring complete transparency of processes to try to minimise potential for power differences to result in
unjust outcomes.
citizen groups as innocent and naïve and public agencies as manipulative; and from an uncritical presentation of alternatives such as litigation. Dukes further argues there has been a lack of good analysis of the success or otherwise of conflict responses.

While much is claimed about cooperative responses, few authors have compared the success of co-operative and adversarial responses. Hellström (2001) compared a range of responses to forestry conflict, and found that parties involved in conflicts of moderate intensity had more constructive relations and better communication than those involved in conflicts of high intensity - an indication that cooperative responses, with their focus on communication and co-operation, may be more successful than adversarial processes in at least some situations.

2.7 Transformational responses to conflict

Some argue that reframing, problem solving and participatory approaches do not go far enough. These authors argue for a shift to ‘transformative’ responses to conflict - sometimes called ‘provention’ of conflict (Burton and Dukes 1990). Transformation in this context usually refers to achieving some type of fundamental change in societal relations. This change may occur at the inter-personal level, e.g. by assisting people to gain the skills they need to address not only a current dispute, but also future disputes (Cloke 2001), or at other levels, transforming ‘... citizenry, communities, and the private and public institutions of contemporary democratic society’ (Dukes 1996: 7).

The central argument of transformative approaches is that successfully responding to conflict requires eliminating the underlying conditions that created conflict in the first place, rather than simply solving a single dispute while leaving the underlying causes of that dispute in place (Burton 1990; Burton and Dukes 1990). The underlying conception is that conflicts are not generated solely by lack of adequate processes and communication, but by other factors beyond the actors and specific disputes involved, which constrain and shape how they can react to particular situations.

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30 Sometimes the term ‘transformation’ is used interchangeably with other terms for cooperative responses to conflict. Here it used only to refer to conflict responses that attempt to change societal relations in some way, consistent with Yarn’s (1999) definition provided in Appendix 2.
Dukes (1996: 162) argues that achieving transformation requires ‘honest, responsible and effective public talk’ and a shift from top-down decision-making to consensus-building from the ‘bottom-up’, to address fundamental problems such as alienation from institutions and governance processes. Dukes believes ‘relatedness’ is needed to effect conflict transformation, a concept encompassing development of a sense of reciprocal responsibility, obligation, loyalty, respect and empathy. This appears to parallel the goals of some of the other co-operative conflict responses discussed above.

This theory is in relatively early stages of development, but clearly draws on radical conflict perspectives. A key issue is that proponents of transformation tend still to discuss implementation of appropriate processes as the way to achieve transformation (e.g. Dukes 1996), without having developed theories about these processes that are appreciably different to those advocated by the various co-operative processes discussed above.

2.8 Limitations of ‘process based’ theory

The theories presented above share some common characteristics, despite the dissimilar processes they advocate. They all focus primarily on the process by which conflict should be addressed; and they are all discussed as responses that can be implemented to address any conflict.

Is it appropriate to recommend a particular conflict response without also detailing for what conflicts, at what stages, it might be most appropriate? What other factors should be considered?

The role of existing formal and informal institutions in moderating responses to conflict is a key example. The way we respond to conflict is determined at least in part by the constraints of social rules about behaviour, as well as by laws stating how we may or may not behave and the various other institutional spaces in which conflict response is enacted. For example, there has been increasing space for cooperative conflict response processes in many public policy processes and judicial institutions in recent decades.

Conflict literature has explored the ways in which existing institutions may exacerbate or contribute to unproductive conflict, ‘even when the intention was to reduce the
conflict' (Tyler 1999: 264). Johnson (1993), for example, found most governmental planning processes in Ontario were ineffective responses to natural resource management conflict as they were mostly reactive, authoritarian and inflexible, although there were a small number of cases where planning processes were successful in reducing conflict as they allowed for flexible, adaptable public participation and consultation.

Conflict literature has also been used to advocate for change in institutions, or establishment of new institutions, to improve conflict responses. Improving the transparency and accountability of decision making processes, enhancing skills and capabilities to deal with disagreement, and integrating participation by a wider range of stakeholders in decision making, are often recommended as ways of improving institutionalised conflict responses (e.g. Kriesberg 1995; Paldanius 1997; Buckles and Rusnak 1999; Kant and Cooke 1999; Yus 2001). Utilising existing customary institutions, and ensuring complementarity between formal and informal institutions are also sometimes emphasised (Yus 2001). A considerable literature addresses building new institutions, often after an existing conflict has ended, to prevent further unproductive conflict. The literature on institution building cannot be reviewed in detail here, but is usually driven by a range of underlying principles such as ‘...fair distribution of resources, the protection of basic human rights, and the establishment of a democratic government ...’ (Hasegawa 2001: 106-7). This literature has clear links to transformative approaches, in that the building of new institutions aims to remove the institutional failures believed to have driven previous conflict (Burton 1995).

The difficulty of implementing new conflict responses within existing institutions has also been examined. For example, Nelson (1990) discusses difficulties faced by those who have to transition back and forth between competitive and cooperative conflict processes, as may occur when solutions developed through a cooperative process are taken to an adversarial space in a different institution.

However, the role of institutions has mostly been conceptualised as something that either stands in the way of improved processes, or needs alteration. There is an
assumption that new processes will be needed in many cases, based around the types of processes discussed above.

The assumption that process is the most important factor affecting the outcomes of conflict has been criticised by some who argue there is a need for an examination of both process and other factors that may affect the success of conflict responses (Burton 1990):

... the process of resolution relies upon the intellectual and communicative skill of all parties (third party and otherwise), the willingness of those in conflict to resolve, and the general cooperation of events which may influence the course of resolution. It is not enough to have two out of three of these requirements for resolution to take place; all three must be present. (Tidwell 1998: 176)

Tidwell’s argument can be extended to raise a broader question about the role of structure versus agency when attempting to respond to conflict. According to cooperative response theorists, providing the right process – or structure – can achieve successful change in conflict. This leaves unresolved the question of the role of individual agency, and how the unique characteristics and motivations of the individuals involved in a conflict affect the likelihood of achieving successful change using a particular conflict response. What is the influence of individuals on the process, versus the influence of the process on the individuals involved in conflict? This question remains relatively unexplored in much of the theory written on cooperative responses to conflict.

A number of researchers have attempted to identify factors affecting the likelihood of positive outcomes from conflict. These studies have generally identified a range of factors related to the capacity and psychological state of actors involved in the conflict. Associated with this has been some analysis of broader socio-economic and socio-political constraints affecting conflict outcomes.

For example, Dotson (1993 cited in Dukes 1996) argued that failure to reach agreement in conflict negotiations is often due to factors such as a preference for litigation, unwillingness to negotiate, political factors such as election timing, and power imbalances. Bingham (1986) and Wondolleck and Yaffee (2000) identified barriers to achieving successful collaborative processes including lack of opportunity or incentive
to collaborate, inflexible policies and procedures, and lack of resources to either undertake a process or implement changes recommended through a process. Hellström and Rytilä (1998) found that changes to policy and regulations, and to the training of forest managers, had reduced forestry conflict in France and Sweden. Carnevale and Isen (1986 cited in Lawler and Yoon [1995]) found that entering a conflict response process with positive emotions or mood resulted in more integrative and problem solving solutions, and fewer contentious tactics.

Bingham (1986), meanwhile, found that success of mediation did not appear to be related to the number of parties involved in the dispute, the types of issues involved, or the time the parties had to reach an agreement.

Despite the examples above, overall there has been little direct examination of factors occurring outside the direct sphere of those involved in the conflict that affect the success of conflict responses, despite calls from some authors to examine the broader social and political context within which conflict occurs.

This has led to a situation where many analyses may inappropriately infer causal relationships between processes deliberately implemented to respond to a conflict and change in a conflict, due to a lack of focus on other factors that may have been involved in the conflict changing course. Stern and Druckman (2000: 38-39) point out that:

... although interventions always precede outcomes, they may not cause them. ... Evaluation ... requires determining how much an outcome should be attributed to specific conflict-resolution efforts and how much to extrinsic events, including antecedent conditions that may have made the result inevitable and unrelated events after the conflict-resolution effort ... It is also important to assess how much an intervention’s outcomes are contingent on its context.

The limited literature available points to a wealth of factors other than deliberate implementation of new conflict response processes that may affect and direct the course of conflict. However, few clear links have been established between the studies identifying factors affecting conflict, and those recommending appropriate responses to conflict.
2.9 Discussion

Studies of social conflict have uncovered a wide variety of knowledge about how people interact and behave during conflicts, and to some extent about the impact of using different processes to respond to conflict.

However, there is often surprisingly little linkage between theories on the factors causing and shaping conflict, and theories on how to respond to conflict, particularly on how the type and nature of conflict affects the success of different conflict responses.

The literature on responding to conflict has been constrained by significant self-imposed boundaries. The first is the development of theories that are not necessarily communicated across disciplines. The considerable cross-over between the reframing/problem solving and participatory literatures is a case in point. While the two literatures use different terminology, they have focused on the development of similar processes for facilitating improved communication and problem solving - but there is little communication between them. More importantly, theorists of conflict response have not always linked their work to underlying conceptualisations of conflict. It can be seen through this chapter that adversarial responses to conflict tend to follow a sociological consensus approach to conceptualising conflict. This is increasingly being replaced by cooperative responses to conflict which draw almost entirely from what has been termed here the functional conflict theory. Few conflict responses have explicitly incorporated a radical conflict perspective, and it is only in recent years that conflict transformation arguments have begun to emerge that argue for a need to address underlying social and environmental structures that produce conflict.

The literature on conflict response has focused almost entirely on studying the processes used to respond to conflict and, to some extent, relationships between parties (e.g. Wondolleck 1988; Tillett 1999; Wondolleck and Yaffee 2000).

Firstly, the focus on process has led to a tendency to assume the success or otherwise of responding to a conflict depends almost entirely on the process used to respond to it. It would seem logical to suggest that factors other than the process used may influence the success of that response. However, while some theorists have suggested that the process, relationships and substance of a conflict all need to be addressed, few studies explicitly
incorporate evaluation of the substantive changes made to try to address conflict, or
other potential explanations for observed outcomes of conflict.

The strong focus on conflict response processes limits explanation of the diverse and
complex outcomes of different conflicts. Dukes (1996: 6) believes the focus on process
is understandable, but has had ‘the unfortunate corollary of excluding the larger
questions about the meanings of practice.’

In addition, most of the literature has focussed on a relatively small range of processes.
Studies have not usually directly compared the success of adversarial versus cooperative
responses to conflict, or even the outcomes of denial responses compared to others.
Often they have not explored the existing processes used to act on conflict, which may
not be conceptualised as ‘conflict response’ processes, and yet act to provide spaces in
which conflicts can be expressed and acted upon.

Those who argue for incorporation of a more radical understanding of conflict, and
hence for a transformational approach to responding to conflict, believe that the focus on
process may lead to underlying causes of conflict remaining unaddressed, while process
after process is applied in vain to a conflict. A logical extension of transformative theory
is that even if a conflict response process is successful in the short term in ‘fixing’ a
dispute, further conflicts will continue to arise until the underlying structural causes are
addressed. As these underlying causes may include national and international economic
and political systems, this point of view has profound implications for those who
attempt to respond to a local or regional scale conflict that may ultimately be driven by
forces operating at a much larger scale.

Few authors have explored the types of responses that should be implemented in
different situations. However, the need for such exploration is recognised. Bingham
(1986: xvi), for example, argued that litigation and other tools may be more appropriate
than cooperative approaches in some situations, as ‘Disputes over environmental issues
are so varied that no one dispute resolution process is likely to be successful in all
situations.’ Wondolleck and Yaffee (2000) similarly warn that collaboration is not
always the best response if the goal is to achieve progress on environmental problems,
and that judicial or administrative processes may be more appropriate in some
circumstances for a range of reasons including cost and ability to achieve change in resource management.

It would seem logical from this that literature on conflict responses should explicitly examine the relationship between types of conflict response and different types of conflict. However, recommended responses to conflict seem to be remarkably similar across all of the types of conflict discussed earlier.

An associated area of investigation not explored in current literature is why groups choose to use particular conflict responses at particular times. When and why do groups use denial versus adversarial strategies? What triggers a shift to cooperative strategies? Many statements are made about these strategies, but the literature has not examined in detail why groups change response strategies, with the exception of authors such as Dukes (1996), who examined how some public conflicts were ignored and others responded to depending on the nature of the conflict.

These questions can be partly answered by identifying the range of theories embedded in different studies about the causes of afforestation conflict and how to respond to it as this literature, as is explained in Chapter 3, has largely developed in isolation from the broad theories of social conflict discussed in this chapter.

2.10 Conclusion

Theories about the role of social conflict have changed considerably over time, from perspectives that conceptualised conflict as an inherently negative experience, to one in which conflict is seen as having important, positive social functions, and in which all parties to conflict are considered to have a legitimate if differing perspective.

This shift has had profound implications for the methods used to respond to conflict, and for the way in which success of conflict responses is evaluated. However, the focus of much of the literature accompanying this shift has been on examining the processes used to respond to conflict. The understandings of social conflict developed suggest that a broader range of factors should be considered when evaluating the success of responses to particular conflicts.
Examination of the success or otherwise of responses to different conflicts has the potential to expand understanding of the usefulness and appropriateness of different conflict responses in a range of contexts. In particular, examining a broader range of potential explanations for the observed success or otherwise of responses to conflict may provide a more complete picture of how factors such as process, relationships and substance, as well as the socio-economic context, affect the success or otherwise of different conflict responses.

Identifying the factors that may be relevant, including types of processes as well as characteristics and conceptualisations of conflict, requires reviewing existing literature on afforestation conflict to identify theories on its causes and nature, and on what actions should be taken to address this type of conflict. This literature is reviewed in Chapter 3, which then compares theories on afforestation conflict to the general theories of conflict reviewed in this chapter.
3 Theories of conflict over afforestation

3.1 Introduction

This chapter critically analyses literature that directly or indirectly examines conflict over afforestation, and compares theories on afforestation conflict to the understandings of social conflict reviewed in Chapter 2.

There has been some research, and a rather larger amount of non-academic descriptive literature, which has examined causes of and/or appropriate responses to afforestation conflict. Most available literature has examined afforestation conflict from a predetermined standpoint, which has shaped subsequent recommendations about appropriate responses to conflict. This viewpoint is not always explicitly stated - in general, the underlying assumptions made about the nature of conflict, or appropriate responses to it, are not overtly discussed at all.

The majority of this chapter therefore focuses on uncovering different theories about the causes of afforestation conflict embedded in the literature, and how these theories shape the responses suggested to conflict. The theories are presented here as a series of hypotheses about the causes of and appropriate responses to conflict over afforestation.

This review does not focus on the topics of afforestation conflict, which were briefly described in Chapter 1. While it is important to understand the nature of positive and negative perceptions of afforestation, this does not necessarily provide an understanding of the causes or processes of conflict. For example, the underlying cause of concerns that inappropriate tree species are established in plantations is not the species of tree being planted, but the decision-making processes that have led (in the view of the critics) to these species being established.

31 For example, some of the studies reviewed started from an underlying belief that afforestation is generally beneficial, and as a result recommended educating others about these benefits as a way of responding to conflict (e.g. Soutar 1986). Others began from the view that conflict is caused by competition for scarce resources, and therefore recommended reducing the level of direct competition for those resources as a way of responding to conflict (e.g. Scambler 1989).
3.2 Locating the literature

This chapter examines only studies concerned with social and political aspects of afforestation\textsuperscript{32}, and occasionally literature on expansion of tree cover for non-commercial purposes. It does not review literature on conflict over the management of natural forests, as this is a distinct issue from that of deliberate expansion of tree cover\textsuperscript{33}.

The literature reviewed includes studies undertaken in a range of regions at different times, which examined a number of types of afforestation, included both descriptive and analytic studies of conflict, and were produced both by academics and by a range of other groups observing or taking part in conflicts. The review was limited to English language literature, and most examined richer countries, particularly Britain, Ireland, Western Europe, Australia and New Zealand. Somewhat less is based on studies undertaken in south-east Asia, India, and Africa. The main reason for this was the accessibility of literature\textsuperscript{34}.

The few systematic comparative studies undertaken to date provided particularly useful perspectives on afforestation conflict, as most indicated that conflict does differ in different regions and countries (e.g. Stewart 1989; Papageorgiou \textit{et al.} 2000\textsuperscript{35}; Tonts \textit{et al.} 2001). Tonts \textit{et al.} (2001), for example, examined levels of concern over

\textsuperscript{32} As defined in Appendix 2. It needs to be recognised that some conflict over afforestation is over the definition of afforestation – which activities can legitimately be called afforestation? What are the consequences of mislabelling a stand of trees as a ‘plantation’ when it is a natural stand? What are the boundaries between a ‘natural’ and ‘artificial’ stand of trees?

\textsuperscript{33} While both afforestation and natural forests are made up of tree species and may be managed to produce wood products, they are otherwise quite different. Afforestation by definition involves a change from one land use to another, while natural forests are so named because land use has not changed. Afforestation also tends not to be associated with the same environmental arguments as management of natural forests, with relatively distinct perceptions expressed about the environmental impacts of afforestation and the management of plantations compared to the management of natural forests. Additionally, the socioeconomic structures involved in afforestation and wood production from natural forests are often substantially different.

\textsuperscript{34} While a considerable proportion of the literature is available in English, particularly in Europe and other countries where English is used to communicate research across countries, some literature on afforestation conflict is only available in other languages.

\textsuperscript{35} This report was part of a series of reports from the Multifor study, a comparative investigation of the multiple roles of forests and forestry in rural development which compared ‘traditional forestry’ regions with those undergoing ongoing afforestation in nine European countries (Netherlands, France, Ireland, Denmark, Greece, Hungary, Germany, Austria and Spain) over 1999 to 2002. The study focussed on examining attitudes to different types of forestry (with afforestation considered a type of forestry) and identifying different discourses about forestry in the different regions studied. See Wiersum and Elands (1999) or \url{http://www.dow.wau.nl/multifor} for a more detailed overview of the project.
afforestation in different regions of Australia, and found less criticism of afforestation occurred in regions with higher economic diversity.

The literature reviewed predominantly examined large-scale, single species plantations established by governments or private corporations for commercial wood production. Less commonly, it examined multiple-species plantations established for commercial or non-commercial purposes by small-scale owners.

The studies reviewed included reports describing conflict over afforestation without explicitly analysing the causes or processes of conflict, as this literature commonly suggests solutions to conflict despite not analysing it critically. Many studies reviewed were undertaken by actors involved in the conflicts – including critics and supporters of afforestation. These studies were included in the review as they present legitimate theories on causes of and responses to conflict that need to be located as originating from a particular viewpoint within afforestation conflict.

Some afforestation literature reviewed discusses responses to conflict - for example changes to regulation of or incentives for afforestation - without explicitly discussing the concerns and criticisms that have driven the response. For example, McCormack et al (1998: 222) examine how to better design landscape planning for afforestation in Ireland, but only briefly and obliquely refer to the conflict creating a need for this work. Similarly, Miller (1991) reviews institutional changes to British afforestation without discussing the social concerns that drove change.

This raises the question of why the criticisms that have driven changes in policy, regulation etc. are not acknowledged, given their evident influence. This issue is discussed below in relation to the rejection by some actors of the legitimacy of conflict over afforestation.

### 3.3 Theories of afforestation conflict

Nine hypotheses about conflict over afforestation were identified from the literature reviewed.

Each hypothesis has been named for the agency argued to have a primary role in causing and/or solving afforestation conflict. The different hypotheses do not form a linear or
completely differentiated set of explanations, but rather an overlapping set in which each hypothesis shares some similarities with others as well as having clear areas of difference. Sometimes authors suggested multiple causes and/or solutions to conflict in a single study. Therefore, while each hypothesis is presented separately there are many links between them.

Each theory is presented in an idealised form below, with discussion of how it may be linked to, or complement, other hypotheses.

3.3.1 Hypothesis One: Afforestation conflict is a symptom of broader conflict

Some studies argue that conflict over afforestation is caused by broader conflicts, and cannot be successfully responded to unless the broader conflict is also addressed.

There are many examples of disputes over afforestation being linked to broader conflicts. Two in particular are common: conflict over land rights and land tenure; and conflict over pressures that lead to rural land use change.

Afforestation conflict is generally hypothesised to be an expression of broader land rights or land tenure issues in poorer countries where property rights are not as stable as in many richer nations – discussed further in Hypothesis 5 - or in countries experiencing ongoing conflict over possession of land. For example, Cohen (1993: 121) situated conflict over afforestation of land in Israel as part of broader competition for land resources between Israelis and Palestinians:

... each side considers the struggle for land to be a war of sorts, and in that war, trees are used as tools, almost as if they were weapons.

The second expression of this hypothesis focuses on pressures in the agriculture sector that are resulting in land use change, including a shift from traditional agriculture to afforestation. For example, in Australia and New Zealand improvements in efficiency of agricultural production together with commodity price changes and removal of

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36 For example, Stewart (1989) discussed relative power of different groups in decision making processes, physical changes needed to afforestation, and differences in discourses when analysing afforestation in Britain, while Lowe et al. (1986) examined both the incentives used to promote afforestation and power of different groups in decision making. Cohen (1993) examined how both competition for land and lack of communication contributed to conflict over afforestation between Israelis and Palestinians.
government subsidies for agriculture have led to amalgamation of farms and loss of rural population, with fewer people required to produce the same amount of agricultural output. Afforestation has been one of the responses to these pressures (e.g. Aldwell 1984; State Plantations Impact Study Steering Committee 1990). Those supporting afforestation argue that afforestation conflict is a misdirected expression of concerns that should be directed at the policies that are causing farmers to leave the land, and that afforestation is a response to, rather than a cause of, socio-economic decline in rural communities. Others disagree, believing afforestation has contributed to socio-economic decline:

The emergence of farm plantation forestry [afforestation] might well be regarded as a symptom of broader processes of restructuring in Australian agriculture. Nevertheless, it is evident that the rapid expansion of farm plantation forestry [afforestation] is accelerating processes of rural economic restructuring. (Tonts et al. 2001: vii)

Afforestation conflict has similarly been argued to be at least partly a result of broader agricultural policies in Britain and Ireland (e.g. Benne et al. 1986). In these countries, changing incentives and subsidies to agriculture from government, as well as changing technologies and market relations, have led to change in the agricultural sector, with afforestation one of the results.

However, while some claim afforestation conflict is merely a symptom of broader conflict, others have found afforestation attracts more criticism than other types of land use change (Petheram et al. 2000; Barlow and Cocklin 2003). This may be explained by many factors, including the visibility of plantations in the landscape, and the unique attributes of afforestation that make it more than simply a ‘symbol’ of another issue:

...what sets plantation forestry [afforestation] apart from agriculture is that it often involves new forms of ownership and control, it is accompanied by changes in population, and it transforms the production landscape. (Barlow and Cocklin 2003: 503)

Where afforestation conflict is characterised as part of a broader conflict, it follows that responding to afforestation conflict without responding to the underlying conflict will be unsuccessful:
...many of the conflicts associated with afforestation cannot be resolved through reforms in afforestation policy alone as they result from policies on other land uses ... (Benne et al. 1986: 111)

In general, studies suggesting afforestation conflict is a symptom of broader conflict have supported their arguments by referring to the political and historical processes operating in a region. None of the studies reviewed actively examined whether conflict over afforestation changed when the broader issues said to be driving the conflict were successfully addressed.

3.3.2 Hypothesis Two: The ‘misperception and cultural resistance’ hypothesis

*Some studies are based on a belief that* conflict over afforestation is caused by misperception of and/or cultural resistance to afforestation, and should be responded to by providing correct information and persuasion.

This type of literature is generally produced by those who promote, undertake, or otherwise strongly believe in the benefits of afforestation (e.g. Pringle 1994). This view is often linked to a strong belief that afforestation is a moral, ethical and/or environmental imperative:

... there is a considerable shortage of forests in Flanders ... Afforestation has to be considered as an ethical duty. (Lust and Muys 1993: 119)

Various explanations are offered for criticisms of afforestation, the most common being that there is ‘cultural resistance’ to the establishment of new plantations which is not based in objective fact:

... the panics about new forests [referring to afforestation in Wales in the 1960s] were largely due to ill-informed propaganda. (Ryle 1969: 126)

A common part of the hypothesis is a belief that, broadly speaking, there is always resistance to change. In this view, initial resistance to afforestation is inevitable because afforestation represents a significant change to the economic, environmental and/or cultural landscape (e.g. Timber Growers United Kingdom 1986; Gardiner 1993; O’Leary and McCormack 2000):

Apprehension about change is a perfectly normal phenomenon and is experienced in all communities, especially those which are small, rural and conservative. In Hawke’s Bay [New
Zealand], it appears that that apprehension [about afforestation] has hardened to prejudice, and untested phrases of judgment have been given substance merely by their repetition, frequently in high places. (Fairgray 1983: 77)

Barlow and Cocklin (2003: 514) source this ‘resistance to change’ in the way afforestation challenges social constructions of rurality:

...pre-existing social representations are a foundation of resistance to rural change ... community opposition to plantation forestry [afforestation] extends, in some measure, from the unease created by changes in the production landscape associated with land-use change, because this disrupts extant social constructions of reality.

Some who present the ‘resistance to change’ argument believe that once people are used to the change, conflict will lessen. For example, Tamaki (1999: 88), discussing afforestation in Western Australia, states without any apparent supporting evidence that when the afforestation company Australian Plantation Forestry Ltd (APFL) began establishing plantations:

... there were a few negative perceptions of the idea of commercial tree plantations on farms. ... Over time, however, the local community has come to realize the many benefits of commercial tree crops.

Some authors, rather than presuming that resistance to afforestation results from misperception or resistance to change, accuse critics of afforestation of having vested interests, and/or being emotive and irrational:

The voice of the unthinking country-lover was raised even louder in what became an environmental cause celebre, the battle of the Flow Country [over afforestation] ... By means of careful manipulation of the media, the threat perceived ... was exaggerated into an ecological disaster ... (Sinclair 1990)

...there are certain elements within the environmental lobby [whose] ... comments misrepresent the facts, are couched in emotional language ... the forest [plantation] industry [needs] to educate the public and explain that properly planned forests [plantations] can enhance the environment. (O’Brien 1990: 18)

Schirmer (2002) found that those who argued for this hypothesis in Victoria and Tasmania (Australia) tended to respond to afforestation conflict in three ways:

- Dismissing concerns about afforestation as illegitimate;
• Criticising the people objecting to afforestation; and
• Disseminating information about the impacts of afforestation, particularly the benefits of afforestation, in an attempt to change attitudes.

The first response, dismissing concerns, has been reported by Stewart (1989), Smith (1990) and Schirmer (2002), all of whom found it did not result in positive change in conflict:

The rationale often advanced for this approach is that it allows time for the issues to become clearer and the conflicts to be clarified. Hopefully circumstances and/or opinions will change in the meantime and will make decision-taking easier. This ‘ostrich’ approach ... does not have a good track record. In my experience, this approach results in a higher level of polarised debate ...

(Smith 1990: 421)

The second response, of ‘criticising the critics’, attempts to de-legitimise the views of critics of afforestation:

The forestry [afforestation/plantation managers] lobby ... like to depict themselves as the level-headed practitioners of commercial reality. A favourite tactic is to decry any opposing views as naïve and emotional. (Tompkins 1989: 9)

Schirmer (2002) found that this type of response tended to inflame conflict over afforestation.

The most commonly discussed response, however, is that of disseminating ‘correct’ information about the benefits and costs of afforestation, to help change the ‘mistaken’ beliefs about afforestation. Various methods of correcting the mistaken beliefs are discussed, variously termed ‘information dissemination’, ‘extension’, ‘education’ and, by critics of this hypothesis, ‘propaganda’ (e.g. Timber Growers United Kingdom 1986; Ni Dhubhain and Wall 1998; Spinelli 1998).

The education ‘required’ may be targeted at the general public, or at specific groups – most commonly, at those who hold or control the land desired for afforestation:

The study results strongly suggest that there is widespread opposition to pine afforestation ... a more intensive educational programme, perhaps requiring a demonstration plot, could alter this situation. (Soutar 1986: 40, discussing attitudes of Western Australian farmers to afforestation)
... adverse attitudes to forestry may provide a significant obstacle ... Greater levels of interest in forestry [afforestation] are likely to be expressed only when farmers become educated in woodland management and recognise the benefits to be gained by practising forestry [afforestation/plantation management] in the context of agricultural diversification. (Scambler 1989: 47, discussing attitudes of Scottish farmers to afforestation)

Much of the literature examining ways to increase adoption of small-scale afforestation – often called agroforestry or farm forestry by landholders also calls for information dissemination in the form of extension strategies to encourage afforestation (Soutar 1986; Neeson 1991; Frawley 1998; Schirmer 2000; O’Leary et al. 2000; Kearney 2001):37

It is almost a truism to state that farmers will resist the introduction of agroforestry ... with agroforestry we ... have a challenging but relatively common extension problem which can be overcome in time by the systematic application of traditional extension methods. (Syme 1978: 127)

Strategies to encourage adoption have been developed based on researching exploring socio-demographic and socio-economic explanations for lack of adoption, such as age, marital status, social status/caste, farm size productivity, off-farm employment/income, and farm succession planning (e.g. Mutch and Hutchison 1979; Selby 1975, 1980, 1990; Lust and Muys 1993; Saxena 1994; Selby and Patajisto 1995; Ni Dhubhain and Wall 1998; Private Forests Tasmania n.d.).

Continuing conflict, or lack of adoption of afforestation by target groups such as farmers, is usually explained by a failure to adequately communicate the benefits of afforestation. Some authors have ascribed this failure to an inherent inability of the afforestation sector to adequately use the media to disseminate their views, while others ascribe it to the stubbornness of the irrational ‘cultural resistance’:

It is extremely difficult to break the cycle of misinformation and strongly held beliefs – basically there are a lot of people out there who are more or less talking to themselves or mirror images

Robinson, P. (1990: 413)

37 This literature has also identified a range of other barriers to adoption, such as lack of appropriate financial incentives (e.g. Bullock et al. 1994; Schirmer 1998). None of the farm forestry adoption literature reviewed compared the success of implementing extension strategies versus changing financial/economic incentives for achieving adoption.
Critics, however, dismiss the validity of the ‘misperception and cultural resistance’ viewpoint, labelling information dissemination promoting afforestation as ‘propaganda’:

The afforestation lobby ... keeps up a steady stream of propaganda to the press and media. It is easy to exploit simple, intuitive beliefs that tree planting is inherently worthwhile, that imports must be saved and that Britain has fewer forests [plantations] than other countries. (Tompkins 1986: 26)

Carrere and Lohmann (1996: 155) argue that information dissemination is used by advocates of afforestation to force a translation of opposing viewpoints into more tractable discourses that cannot as easily challenge afforestation.

Only one of the studies reviewed examined whether information dissemination or extension programs had successfully changed conflict over afforestation. Schirmer (2002), found information dissemination had not been an effective short-term response to afforestation conflict in five case studies in Victoria and Tasmania (Australia). Further study is needed to identify whether this result applies in a wider range of situations or over longer timeframes.

3.3.3 Hypothesis Three: Conflict is caused by competition for scarce resources

In this hypothesis, conflict over afforestation is believed to be caused by direct competition for scarce resources – primarily for land - and can be resolved by lessening the need for direct competition. The primary type of competition discussed is competition for control of land. This may take the form of competition between the traditional agriculture and afforestation sectors for land (e.g. Martin 1970: 12; Land Conservation Council 1981; State Plantations Impact Study Steering Committee 1990; Gillmor 1993: 48), or may involve conflict over the replacement of natural forest cover with plantations (e.g. Land Conservation Council 1981):

The afforestation of land ... is bound to cause inconvenience and even hardship to existing owners and occupiers: the cry of mutton versus trees will be raised. (Forestry Commission Annual Report [Britain] 1919/20, cited by Linnard 2000: 191)

38 Some stated information dissemination had been effective, but without providing evidence or a clear research method for having determined that this was so (e.g. Ryle 1969).
The competition discussed is more than a simple battle for control over the production functions of land; it is a battle for the control over maintenance and construction of personal identity that is linked to that land. Several authors link resistance to afforestation to the power embedded in land ownership and control of its production functions (Fairgray 1983; Le Heron and Roche 1985; Tompkins 1989; Selby and Petajisto 1995), and the way identity is constructed through discursive understanding of the meanings of concepts such as 'rural' and 'rurality' (e.g. Cocklin and Wall 1997; Bishop et al. 2002; Hunter et al. 2002: 19):

There is no question that farmers’ attitudes reflect a fear of reduction of their local power base and a reduction of control and local community self-determination if the pre-eminence of owner-occupier control of land and community is lost. (Fairgray 1983: 77)

...afforestation not only changes space relationships, it also alters the productive structure and ‘feel’ of rural areas ... by way of its production, space acquires a political economy representing the power relations contained therein. (Selby and Petajisto 1995: 80)

Afforestation conflict may therefore occur if afforestation challenges constructions of identity that are linked to the land or rural landscape.

Solutions suggested under this hypothesis generally focus on lessening competition for land. For example, the Land Conservation Council (1981) recommended using marginal agricultural land for afforestation, to reduce direct competition for either ‘good’ agricultural land, or land with high environmental value such as that still occupied by relatively unmodified ecosystems.

Similar suggestions have been made or recorded by other authors (e.g. Marchak 1995; Ni Dhubhain and Wall 1998; Schirmer 1998, 2000, 2002):

...Farming organisations ... wish that good land be sold to farmers for agriculture rather than allow it to be irretrievably lost to and wasted on forestry [afforestation]. (Ni Dhubhain and Wall 1998: 169, discussing afforestation in Ireland)

39 This links to the theories discussed in Hypothesis 7.

40 Land of low productivity for agricultural purposes. Definitions of what constitutes ‘good’ versus ‘marginal’ agricultural land appear to vary considerably depending on the region and the type of agriculture being undertaken.
Plantations are preferable to natural forests for ... logging, provided they are established on land marginalized or denuded by earlier agents; ideally, land for which no better use can be detected and which would benefit from rehabilitation. (Marchak 1995: 10)

In at least one case, the government has implemented policies to minimise direct competition by encouraging afforestation only on marginal agricultural land (Mather and Thomson 1995).

Others believe there are possibilities other than simply allocating land to one or another use, such as better integrating afforestation with traditional agricultural enterprises:

... there appear to be two distinct approaches to land use decisions. One is to regard forestry and farming (and sport shooting, etc.) as discrete competing systems which can “win” and “lose”. The other approach allows the possibility of an integration in which the requirements of both enterprises may benefit from the interaction between them. (Mutch and Hutchison 1979)

This type of solution is discussed under Hypothesis Eight.

3.3.4 Hypothesis Four: Conflict is caused by lack of scientific information and can be solved using objectively gathered evidence

Some of the literature reviewed was characterised by an underlying belief that objective scientific evidence can be used to adjudicate whether criticisms of afforestation are ‘right’ or ‘wrong’ and, where criticisms are found to be valid, can be used to provide technical solutions that will stop conflict.

While the nature of the problems and solutions identified vary, this hypothesis is characterised by a belief that the solution to afforestation conflict is to evaluate if afforestation has negative impacts, and then to either correct the mistaken beliefs if it does not, or to correct the problem if negative impacts are found.

The use of scientific evidence as an objective ‘adjudicator’ of conflict is recommended or reported in several studies. For example, Poore and Fries (1985) examine scientific evidence about the ecological effects of eucalyptus plantings to evaluate perceptions that eucalyptus plantations cause ecological damage. Others have used objective evidence to

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41 For example, perceptions of negative impact may be related to factors ranging from the geographical location, arrangement, scale, and/or species established in a plantation to the impact of afforestation on rural population levels.
evaluate the economic and social, as well as the environmental, impacts of afforestation. Where criticisms of afforestation are judged to be mistaken or invalid, the solution generally suggested is information dissemination to correct the mistaken beliefs. This was discussed in Hypothesis Two.

Where criticisms of afforestation are supported by the evidence gathered, the development of a technical solution – i.e. a change in the way afforestation is undertaken – is often presented as an appropriate solution to the conflict. These ‘science-based’ solutions have been advocated both by those promoting and by those criticising afforestation (e.g. An Taisce 1990; Environmental Resources Management 1998).

The complexity of evidence required to adjudicate on an issue may be daunting:

In one location a plantation of fast growing eucalyptus might have a profoundly negative impact on wildlife, or reduce the amount of water available to other users. Yet a similar plantation elsewhere might do little or no harm to wildlife and water resources. A plantation of fast-growing pines might produce significant social and economic benefits. Yet a similar plantation elsewhere might lead to changes that hurt local communities. (Cossalter and Pye-Smith 2003: 2)

Those who suggest technical solutions that involve changing the type, design and placement of afforestation generally leave it to others to determine the processes by which proposed solutions should be implemented. Some argue that technical solutions are needed before the best processes for implementing them can be identified. For example, when reviewing United Kingdom (UK) catchment policy Newson (1990: 53) argued that:

Now that hydrological research has become more unified in its approach and findings the spotlight falls upon policy options by which the undesirable effects of plantations can be mitigated or removed.

42 See for example Mather and Murray (1988); Cunningham (1991); Campbell and Fairley (1991); Harvey (1991); Hornung and Adamson (1991); McGilvray and Perman (1991); Miller (1991); Strak and Mackel (1991); O’Leary et al. (1998); Clinch 2000; Crowley et al. (2001).

43 For example, McCormack et al. (1998) and Karjalainen and Komulainen (1998) recommend improved landscape planning methods for afforestation in Ireland and Finland respectively, with the goal of reducing conflict over the aesthetic impacts of plantations. Land Use Consultants et al. (1989), Bell (1999) and Linnard (2000) examine similar landscape issues in Britain.
However, others recommend both technical solutions and appropriate processes for implementing. For example, Pereira (1993), FAPIRA (1995) and Jaakko Poyry and ABARE (1999) variously recommended environmental impact assessment (EIA), participatory processes, and certification as appropriate mechanisms for implementing technical solutions.

Carrere and Lohmann (1996: 61-62) argue this hypothesis is flawed because there is no such thing as ‘objective’ scientific evidence:

... a variety of scientific work has been conducted to prove that monocultures of eucalyptus, pine and other species do not have large negative effects ... A great deal of equally important scientific work, on the other hand, has concluded that such plantations do substantial damage, both social and environmental. ... modern science is not an objective, monolithic construction located outside society. Any scientific work is coloured by the experience of the author and linked to her or his scale of values and vision of the world.

Cohen (1999: 440), meanwhile, argues that technical ‘fixes’ enable those undertaking afforestation to avoid discussing or addressing deeper economic, political and environmental issues:

... criticism of the planting agenda focuses on elements subject to ‘fixing’ – species, selection, location, local participation, etc. – for there can be, the planters suggest, nothing inherently wrong with trees, given their manifold benefits ...

None of the studies reviewed explicitly examined whether either the use of scientific evidence to judge whether criticisms of afforestation were valid, or the removal of identified problems, successfully addressed afforestation conflict.

3.3.5 Hypothesis Five: Conflict is caused by institutional failure

Many studies proceed from an underlying belief that conflict over afforestation is caused by one or more types of institutional failure, and can be solved by reforming or replacing the institutions involved\(^4\):

\(^4\) This hypothesis is strongly linked to Hypothesis One, as particular instances of institutional failure are often argued to have a range of impacts, only one of which is an impact related to afforestation. For example, lack of adequate land tenure may lead to a range of perverse outcomes, only one of which may be inappropriate afforestation.
... when plantations cause serious social problems, it is often poor governance that is to blame ...
(Cossalter and Pye-Smith 2003: 34)

The types of institutions discussed vary, but include land tenure, regulatory systems, incentives for afforestation, and/or government policies, each of which is discussed below. Within all of these, the types of institutional reform suggested vary, but often involve recommendations that a wider variety of groups be given opportunities to participate, and hence increased power, in decision-making (e.g. Brotherton 1986; Blunden and Curry 1990).

While many studies review the role of institutional failure in afforestation conflict, few have examined whether implementation of the various institutional reforms recommended successfully addressed conflict.

3.3.5.1 Government policy

Government policies are often presented as a cause of conflict over afforestation. Common criticisms include that policies have been developed from the ‘top-down’, with a resultant focus on promoting afforestation that fails to recognise associated social, economic or environmental issues (e.g. Cesar Sepulveda and Verscheure n.d.). For example, the afforestation policies of Australia, Britain and Ireland have all at various points focussed on achieving expansion of plantation estate, and some argue they have focussed on expansion at the expense of rural communities and/or the environment (e.g. Stewart 1985; RSPB 1991; McCormack et al. 1998; Senate Rural and Regional Affairs and Transport Legislation Committee 2004).

A commonly suggested solution is to develop government policy from the ‘bottom-up’, with local and regional participatory processes resulting in more diverse, better targeted

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45 See The Ramblers’ Association (1971); Nature Conservancy Council (1979); Bainbridge et al. (1987); and RSPB (1991) for examples of a range of suggested institutional changes to government agencies in Britain, and Environmental Resources Management (1998) for suggested institutional changes in Ireland. In Australia, debate has commonly focussed on the extent to which institutions should be prescriptive versus adaptable to changing circumstances (e.g. Wilkinson and Drielsma 2001).
policies. This is discussed further in the next section\textsuperscript{46}. Conversely, though, some have argued there is a need for more centralised government policy to direct afforestation\textsuperscript{47}.

A range of more specific approaches to developing policy have been suggested in different contexts. An example is the identification of preferred and less preferred regions for afforestation in Scotland through the mapping of social, economic and environmental values attached to different landscapes (Williams 1993).

3.3.5.2 Land tenure

There are many instances in which insecure or contested land tenure has been argued to be a cause of conflict over afforestation. A common example is the provision of land to afforestation companies by governments without recognition of existing use of that land for subsistence or production purposes. The people using the land often have customary or unrecognised tenure, and lose access to the land when it is afforested. This has been predominantly reported in developing countries, including amongst others Brazil, Chile, Thailand, and Vietnam\textsuperscript{48}.

Land which foresters and government officials often assume to be “empty” or “barren” is often not at all empty, but is used for a variety of purposes important to the communities living there. ... “bare hills” are of great value for fodder and fuel and for temporary crop production (Shanks 1994: 82). Conflicts are therefore common, when such land is earmarked for industrial plantations. (Lang 2002: 161, discussing land tenure issues in Vietnam)

Land tenure issues have also been reported in developed countries. Conflict has occurred over afforestation of common lands in Spain, as while village councils permitted the afforestation, those who lost grazing and use rights over the land received little compensation (Groome 1993).

\textsuperscript{46} See also Mayers and Bass (1999) for discussion of this in regard to international forest policy.

\textsuperscript{47} For example, Jones (1994) and Turner (1996) argued for implementation of a national afforestation policy in Britain, the objectives of which could then guide all afforestation. Turner (1996) argued that developing different afforestation policies and goals for different regions resulted in unaccepteable differences in outcomes relating to achieving biodiversity.

\textsuperscript{48} See for example Morrison and Bass (1992); Lara and Veblen (1993); Christensen (1994); Carrere and Lohmann (1996); Marchak (1995); Lang (2002); Cossalter and Pye-Smith (2003); CED/FoE Cameroon (n.d.); Miettinnen and Lammi (n.d.).
3.3.5.3 Regulation of afforestation

A lack of effective regulation has been argued to be a source of conflict over afforestation, with a range of regulatory failures identified (e.g. An Taisce 1990: 23). Examining regulatory failure is challenging as there are multiple forms of regulation, many different aspects of afforestation that may be regulated, and regulations may impact variably on different groups/regions:

... the outcomes of regulatory practice will be differentiated in space, because customary practices are not geographically homogenous. (Cocklin and Wall 1997: 154)

Forms of regulation discussed in afforestation literature include government regulation, self-regulation through mechanisms such as voluntary codes of practice, and regulation by independent non-governmental bodies.

There is considerable disagreement about the most appropriate form of regulation. For example, Walker et al. (2000: 294) argue that ‘private regulation (voluntary and self-regulation) shows some promise as a mechanism for transferring requirements relating to environmental quality through the management of production systems’, while others argue that voluntary and self-regulation often fail to protect the public interest (e.g. Stewart 1989: 44-45).

Both government and voluntary regulation have been criticised on a range of fronts, including:

- Concerns about conflicts of interest where a government agency is both manager and regulator of plantations, or where a private plantation grower regulates its own activities with little oversight (Tompkins 1989; Rickman 1991; RSPB 1991; Schirmer and Kanowski 2005)⁴⁹;
- Concerns regulators have overly narrow remits and that as a result some activities which need oversight are ‘falling through the cracks’ of the regulatory systems (e.g. McPhillimy 1984); and

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⁴⁹ In recent years, there has been a shift away from dual role government agencies, with privatisation of State-owned plantations in some instances, and the splitting of commercial and regulatory roles of government agencies in others (Garforth and Mayers 2005).
• Debate about whether social and/or economic impacts of afforestation should be regulated (e.g. Schirmer 2002).

Much of the literature reviewed made claims about the efficacy of particular forms of regulation. However, these claims were generally based on theoretical arguments for particular forms of regulation, and did not explicitly compare the effects of different types of regulation on conflict.

Government regulation and self/voluntary regulation are discussed separately below, as different issues are raised about each type of regulation.

**Government regulation**

Regulation of environmental impacts is perhaps the most common form of government regulation of afforestation. There appears to be little dissension in the literature about the need for government regulation to prevent negative environmental impacts occurring as a result of afforestation. Many authors believe actions taken to strengthen environmental regulations have reduced the negative impacts of, and hence conflict over, afforestation (e.g. Blaha and Matjkova n.d.). However, in many regions concerns remain about the adequacy of regulation of the environmental impacts of afforestation. For example, the efficacy of having one versus multiple government agencies regulating different types of environmental impacts is debated (e.g. McPhillimy 1984). Dissatisfaction with government regulation of environmental impacts has led to implementation of new forms of self and voluntary regulation, discussed further below, and to calls for the implementation of market-based mechanisms to replace direct regulation (e.g. Tewari 2001).

Government regulation of social and economic impacts of afforestation attracts considerably more criticism than regulation of environmental impacts. In several regions, local government or regional planning schemes have been proposed or used as

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50 For example, Gray and Edwards-Jones (1999) reviewed environmental impact assessments (EIAs) of proposed afforestation in Scotland between 1988 and 1996, and concluded that considerable strengthening of EIA practices was needed for the regulations requiring EIAs to achieve their intended effects.

51 Self/voluntary regulation of social and economic impacts, however, appears more broadly accepted.
tools for regulating the socio-economic impacts of afforestation\textsuperscript{52} (e.g. Gillmor 1993; Selman 1996; Kelly and Lymon 2000).

While some argue strongly for the use of planning systems, others argue they should not be used to regulate social and economic impacts. The key concerns are that making afforestation subject to planning control disadvantages it compared to land uses not subject to such controls, and that there may be considerable variation in regulation by different local governments (Wilkinson and Drielsma 2001; Schirmer 2002).

**Voluntary regulation**

Voluntary regulation takes many forms. For example, in New Zealand, voluntary agreements have been signed between the afforestation sector and environmental non-governmental organisations (ENGOs) setting out agreements on where and how plantations will be established (Schirmer and Roche 2005).

Criticisms of voluntary regulation often focus on concern that there is a lack of independent oversight of performance against the regulation. For example, the ‘gentleman’s agreement’ in place in Britain in the mid 1980’s, under which private forestry companies voluntarily submitted afforestation proposals for approval, was heavily criticised as the approval process was believed by many to be heavily biased towards forestry interests (Tompkins 1986, 1989).

Perhaps the best known voluntary regulatory instrument is certification, a market instrument in which products are given an eco-label if they meet the conditions required for certification (Bass n.d.). Certification schemes used in the afforestation sector range from the Environmental Management Standard (EMS) ISO14001, which certifies

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\textsuperscript{52} Local government planning schemes have been used in some Australian States and in pre-1991 New Zealand to determine where plantations may and may not be established based on their social and economic, as well as environmental, impact.
management processes but not outcomes, to the Forest Stewardship Council (FSC) certification scheme\textsuperscript{53}.

Different certification schemes have different standards and requirements. The actions a certifier requires of a plantation grower may include addressing issues causing conflict. For example, during certification of SAFCOL (South Africa’s public forestry corporation, which primarily manages plantations), the certifier:

\ldots found evidence of unequal wages \ldots and parity has now been imposed \ldots SAFCOL has also had to resolve local water disputes, maintain public access for recreation and hiking, improve the implementation of its employee housing policy, map sites of cultural, historical and traditional importance, and ensure that local communities have at least equal access to employment and contracting opportunities. (WWF 2000: 14)

Certification schemes have been criticised on many fronts, including the inability of small businesses to bear the costs of certification, concerns certification adds extra layers of regulation, and concerns about whether certification leads to market advantages (Bass n.d.).

3.3.5.4 Incentives for afforestation

Incentives provided for afforestation are argued both to cause conflict and to be a response to it. Considerable debate occurs over whether incentives should be provided for afforestation at all. Depending on the type of incentive, and the perspective held by decision-makers, incentives may be viewed as methods of correcting market failure, or as distortions of otherwise competitive markets (e.g. Bhati \textit{et al.} 1991).

Two incentives commonly discussed are tax deductibility of afforestations costs and/or returns, and provision of grants for afforestation\textsuperscript{54}.

\textsuperscript{53} The FSC sets standards for well-managed forestry/plantations, and accredit independent certifiers to audit organisations who apply for or hold FSC certification. In return, organisations have the right to use the FSC logo on wood products made from timber sourced in their forests (WWF 2000).

\textsuperscript{54} Some argue that the latter – tax deductions – are not an incentive but act to remove an impediment to development of afforestation. Tax deductibility is referred to here as an incentive for afforestation as it provides more reason to undertake afforestation than if such provisions were not present. Incentives other than grants and tax deductibility have also been provided for afforestation in some cases, including guarantees by governments to provide land for tree establishment, or assistance for establishing timber processing facilities.
The use of tax incentives, ranging from allowing tax deductibility of plantation establishment costs against other income, to making afforestation profits tax-free, has been a source of contention in some countries (e.g. Robinson, G.M. 1990; Schirmer 2002). The key concern is that investors may invest in afforestation for the tax benefits, rather than the viability of the afforestation project, resulting in poor quality afforestation.

In Britain, it was argued that taxation-based incentives are a 'blunt instrument' that cannot be targeted to encourage preferred types of afforestation. The alternative implemented from 1988 onwards in Britain was to shift to providing government grants for specified types of afforestation considered to have positive impacts and few/no negative impacts (Tompkins 1986, 1989; Slee et al. 1996).

Stewart (1989: 47), however, believes the problem is that the impacts of any incentive provided are difficult to predict:

> Tax concessions for afforestation gave results quite different from those originally intended, and there is a danger that the same may happen with ... grant scheme[s].

In developing countries the provision of subsidies and grants to encourage afforestation has been strongly criticised. Concerns have been raised that, if not accompanied by adequate regulation, incentives may encourage such activities as clearance of native forests for afforestation with exotic species, or encourage the eviction of landholders who do not have formalised land tenure. In addition, it has been argued that grants may provide perverse incentives that encourage afforestation when other land uses would have greater social and/or economic benefit (Carrere and Lohmann 1996; Cossalter and Pye-Smith 2003).

### 3.3.6 Hypothesis Six: More participatory decision-making processes are needed

This hypothesis suggests that conflict over afforestation is caused by a lack of involvement of relevant groups in decision-making processes, and can be solved by increasing participation in decision-making about afforestation:

> Lack of involvement of rural populations and environmental groups, can result in confrontation which is detrimental for creating a climate of trust ... (Garcia Pérez and Groome 2000: 489)
This hypothesis has been put forward by numerous authors in many countries and regions. The basis of this hypothesis is that when groups are excluded from participation in decision-making, the only way they can have their concerns heard and acted upon is to protest publicly via the media, physical protest, sabotage, or other means. The oft-stated solution is to institute more participatory decision making processes (e.g. Elands et al. 2000, Papageorgriou et al. 2000). Increasing meaningful communication between stakeholders is argued to be the best approach to building trust, reducing conflict, and improving the way afforestation is undertaken (Petheram et al. 2000; O’Brien and Edwards 2002).

This argument parallels a general call for increased use of participatory processes as part of decision-making processes in many countries, particularly in rural areas and in regard to natural resource management. According to modern theories of rural development, increased participation in decision-making is central to the success of rural development and the well-being of rural communities (FAPIRA 1995).

Increased use of participatory processes in the forestry and plantation sectors has also been linked to a shift to ‘post productivist’ forestry in some countries, referring to a shift in emphasis from timber production to production of multiple services including recreation and environmental services (Wiersum 1998; Mather 2001):

Accompanying this shift has been a reduction in the degree to which the forest industry and forestry professionals have been the dominant voices in the formulation of forest policy, and a corresponding increase in the influence of environmental and recreational interest groups. (Mather 2001: 262)

Some authors recommend implementing participatory approaches without examining in detail what form they should take (e.g. The Ramblers’ Association 1980; An Taisce

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55 See for example Aldwell (1984); Barlow and Cocklin (2003); CFPLM (1989); Smith (1990); RSPB (1991); Morrison and Bass (1992); Groome (1993); Henderson-Howat (1998); Koch and Rasmussen (1998); Garcia Perez and Groome (2000); Petheram et al. (2000); Slee and Wiersum (2001); Tonts et al. (2001).
1990; Environmental Resources Management 1998), while others advocate specific types of participatory processes56.

In general, calls for increased participation fall into a continuum, with calls for increased communication on one end, and for direct participation in management of resources on the other. Three different types of participation are often discussed:

- Providing opportunities for a wider range of stakeholders to influence decisions made by government;
- Increased consultation, communication and participation between groups involved in a conflict; and
- Transferring control of plantations to communities, through direct ownership or management rights.

Many have suggested increasing opportunities for different groups to participate in and/or contribute to government policy decisions as a solution to afforestation conflict (e.g. British Association of Nature Conservationists 1983; Timber Growers United Kingdom 1986; Marshall 1997; Tewari 2001).

A range of studies have examined how different groups influence government decisions. Some of these have focussed on recording the success or otherwise of different groups, without suggesting or advocating particular strategies to increase participation57.

56 These go by various names, including community engagement, partnership models, consultation, participation, co-management and community management (e.g. North Highland Forest Trust n.d.; Foy et al. 1998; Foy and Pitcher 1999; Land Use Consultants 2000; Wallis 2001).

57 For example, Winter (1996: 300) used a policy network model to analyse the relative influence of different groups on afforestation policy in Britain through the 1980s and early 1990s, and concluded that major policy changes were the result of the plantation sector’s policy community lacking the resources or ability to retain political influence. Over two decades earlier, The Ramblers’ Association (1971: 3) had argued that the British plantation sector had too much political influence, as did those expressing concern over British afforestation in later years (e.g. The British Association of Nature Conservationists 1983; Tompkins 1986, 1989). Tewari (2001) examined changes in the ability of different groups to influence public policy in South Africa using an Advocacy Coalition Framework analysis. Tewari identified two distinct ‘advocacy coalitions’ in South Africa, the ‘commercial forestry advocacy’ coalition and the ‘environmental advocacy’ coalition, and found power had shifted to the environmental coalition since 1994, significantly changing afforestation outcomes:

In the new South Africa, the influence of commercial forestry farmers and corporate forestry companies is definitely on the decline ... the power that the companies have lost has been appropriated by the government and dispersed to the rural communities ... (Tewari 2001: 343)
Others, however, have focused on examining the processes available for participation in decision-making, and almost invariably recommend increasing opportunities for participation. The benefits of increased participation are said to include increased flexibility, responsiveness to varying conditions, more efficient use of resources, and reduction in social and environmental mistakes, all leading to reduction in conflict.

A number of models have been developed to help facilitate participation in government processes (e.g. Marshall 1997; Hislop and Twery 2001). However, relatively little work has examined whether increased participation leads to positive change in conflict. One of the few that has is Marshall (1997), who reviewed the use of public consultation processes to develop ‘Indicative Forestry Strategies’ (IFSs), which map the sensitivity of different regions to new afforestation in Scotland. He concluded that, despite having problems:

With the advent of IFSs, improvements in consultation procedures and changes to the Woodland Grant Schemes (WGS), much of the unproductive confrontation has left the debate between foresters and conservationists. (Marshall 1997: 6)

However, participation in government processes is being challenged by the ongoing withdrawal of government from active engagement in plantation ownership, management and development in many countries. Opportunities for participation in afforestation-related decisions may be either strengthened or weakened by this withdrawal, depending on the type of devolution/transfer of ownership (Slee and Wiersum 2001; Garforth and Mayers 2005).

The second form of participation often recommended as a solution to conflict is direct consultation, communication or participation between groups involved in conflict. These recommendations are usually suggested simply, without focusing on frameworks within which communication might take place (e.g. Ryle 1969; Anon. 1972; Timber Growers United Kingdom 1986; CFPLM 1989; Cohen 1993; Kelly and Lymon 2000; Schirmer 2002):

...rural land use policies ... should be established by agreement between foresters, farmers, and other interests. (Anon. 1972: 65)
The third form of participation suggested is the transfer of ownership of, or management rights over, plantations to local communities. Often called co-management or community management, this has most commonly occurred in developing countries, notably via Joint Forest Management in India and community forestry initiatives in Nepal (Agarwal 2001). Community management has also been encouraged in Scotland (Inglis 1999).

Shifts to community management face many challenges, including establishment of appropriate legislative and policy infrastructure, development of capacity for communities to manage plantations, and ensuring the transfer does not unduly advantage or disadvantage particular people or groups (Slee et al. 1996; Agarwal 2001).

Similar challenges face introduction of participatory approaches in general. Hislop and Twery (2001, 2002), for example, point out that attempting to increase participation is difficult when many foresters (2001: 5) ‘... have little knowledge and even less experience regarding how to go about involving the public.’ It can be difficult to identify excluded/minority groups who should be included in participatory processes, and to understand and capture the values people use to make decisions relating to issues such as afforestation (Burgess and O’Brien 2002; O’Brien 2002).

While literature calling for increased participation in decision-making about afforestation is widespread, few studies have examined (a) the success or otherwise of existing participatory initiatives; (b) whether communities desire increased participation; and (c) the most appropriate forms of participation – be it increased consultation, participation in government decision-making processes, or community ownership/management of plantations.

Tylden-Wright (2000: 32) examined collaboration between the Laggan Forest Partnership and Forest Enterprise in Scotland and concluded it had resulted in ‘the transformation of a confrontational relationship into a constructive partnership which has delivered development in the local community.’ García Pérez and Groome (2000), meanwhile, examined claims by the Spanish government that it had broadened

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58 The government agency managing publicly owned plantations in Britain.
participation in decision making about afforestation, and concluded that little genuine participation was occurring.

Slee et al. (1996) examined whether some Scottish rural communities wanted to directly manage publicly owned plantations. They found that while communities wanted the public agency managing plantations to be accountable and responsive to local communities, most did not want more direct involvement in plantation management:

... the overwhelming majority expressed extreme reservations about 'community ownership' or 'community management' of the forest [plantation] resource. (Slee et al. 1996: iv)

Other than these studies, there has been little evaluation of the effectiveness of increasing participation in decision-making about afforestation, or the most appropriate forms and levels of participation in different situations.

3.3.7 Hypothesis Seven: Conflict is caused by dominant or conflicting discourses

Some argue that afforestation conflict is the result of one discourse dominating others in a way that results in inappropriate afforestation, or of the conflicting values/worldviews of different discourses. This hypothesis is often linked to work on participatory and political processes.

Elands et al. (2001: 15, drawing on Elands and Wiersum 2001) provide a concise definition of discourse:

A discourse consists of a set of arguments which people use to communicate their understanding and explanations about the meaning of certain phenomena. ... This meaning is socially constructed in interactions with other people, and is therefore space and time specific.

It follows from this definition that differences in discourse may result in conflict, and that discourse analysis may be used to better understand conflict.

Most analyses of afforestation discourses have focussed on examining discourses which encourage afforestation – termed the 'tree planter's discourse' by Cohen (1999). Most of these analyses have concluded that the tree planter's discourse has dominated other discourses about afforestation, and that this has resulted in inappropriate afforestation.

In general, studies which examine ‘tree planter’s’ discourses have a common theme: the authors write from a viewpoint critical of afforestation. Criticisms of afforestation are
presented, followed by an analysis that argues the problems described stem from the discourse of those promoting afforestation. This discourse is generally criticised for having profit-driven motives, lack of awareness of other land use discourses, and for its strong belief that tree planting is an inherent ‘good’ (e.g. Carrere and Lohmann 1996; Cohen 1999; Geno 1999; Williams 2000). Cohen (1999: 426) further argues that tree planting discourses carry such a strong Edenic metaphor that they effectively prevent criticism or critical review of afforestation.

The tree planter’s discourse is sometimes further argued by critics to have a hidden agenda, in which there is either active or implicit deception of the wider public by the ‘tree planters’, who misrepresent the true purpose, benefits and costs of afforestation (e.g. CED/FOE Cameroon n.d.; García Pérez and Groome 2000). This type of analysis is often linked to arguments that a deficient or corrupt global economic system is the ultimate cause of conflict over afforestation:

Through the [tree planter’s] discourse, trees for profit are converted into tools to save the environment, improve nature, enable limitless consumption and provide various other collateral benefits. ... As to what is sustainable, the overt answer is current practices of managed forestry [plantations], whereas the embedded message is current economic structures and patterns.’ (Cohen 1999: 426-427)

Geno (1999: 418-419) concludes that afforestation discourses in Australia allow plantations and farm forestry to be managed:

...almost solely for economic gain with little or no public debate about the soundness or ultimate consequences of these practices ...plantations and farm forestry are considered to be managed sustainably under profit-driven criteria.

She relates this to the dominant instrumental rationalities of government in Australia, in which the goals are maximisation of production and efficiency.

Other critics of the ‘tree planter’s’ discourse do not present the discourse as involving active deception, but rather argue that those who are part of the discourse - usually
foresters - use inappropriate afforestation practices due to the nature and content of their training (Stewart 1989; Robbins 1998; Garcia Pérez and Groome 2000)\(^5\).

Robbins (1998) argues that, in the state of Rajasthan in India, negative impacts of afforestation are the direct result of a tree planter’s discourse which rejects local experience and knowledge and values ‘top-down’, scientific, ‘narrow’ knowledge:

...the nature of forest [plantation] management is rooted in a decision structure that fails to educate regional information and erases environmental knowledge even among its own foresters, resulting in inappropriate decisions. ...the forests [plantations] of the planner’s mind, designed on paper and rooted in ecologically narrow monoculture, are displacing existing tree cover in Marwar, even while ecological authorities proclaim victory for the environment. (Robbins 1998: 69-71)

Critics of the tree planter’s discourse often argue that the ‘tree planters’ are unresponsive to criticism or opposition, and try to explain this unresponsiveness. Price (1976), for example, argued that foresters strongly believed they have the technical ability to solve afforestation problems, and that this belief resulted in a ‘puzzled’ or ‘complacent’ reaction to criticism. This view is supported by the writing of the ‘tree planters’ themselves (e.g. O’Brien 1990; Pringle 1994):

Foresters destroying the environment is a contradiction in terms. Our basic training and instincts are to protect and improve the environment and we have to regain the high ground by communicating this to the public. (O’Brien 1990: 18)

While studies focussing on the tree planter’s discourse often imply that conflict is caused by conflicting discourses, they do not generally describe other discourses about afforestation, having what appears to be a preconceived belief that it is those undertaking afforestation who bear responsibility for conflict, and who must change if conflict is to end.

Where a range of different views about afforestation have been examined, it has usually been via a survey of the attitudes and values of pre-defined groups such as farmers or urban residents (e.g. Dwyer Leslie Pty Ltd and Powell 1995). While this is useful, it sets

\(^5\) Similar arguments have been made about management of natural forests (e.g. Wondolleck 1988).
artificial boundaries rather than identifying more organic groupings of values, attitudes and beliefs – in other words, discourses – within a population.

In some cases, a limited attempt has been made to identify different discourses and how they have interacted. For example, Schirmer (2002) identified distinct discourses of groups engaged in conflict over afforestation in Victoria and Tasmania in 2000, and found each discourse tended to dismiss others as illegitimate.

A more comprehensive analysis of afforestation discourses has been undertaken by Elands and Wiersum (2001) and Bishop et al. (2002). Elands et al. (2001) and Elands and Wiersum (2001) identified ‘five ideal, typical discourses on rural development’, and the role of forestry within each, as part of the Multifor study. They found that distinctions between different discourses were:

...not only related to economic and policy considerations, but also to experience-based considerations regarding landscape values and to moral considerations on whether traditional inhabitants or newcomers/outsiders should be involved in decision-making over the rural space (Elands et al. 2001: 17)

For example, in the agri-ruralist discourse, afforestation might be regarded positively or negatively depending on whether it is believed to support rural development. According to this discourse, ‘...forestry [plantations] should not become too dominant in any area, as this would endanger the identity of rural areas as areas under farmers’ stewardship...’ (Elands et al. 2001: 13). In contrast, in the hedonist discourse, (p.11) ‘the ideal countryside is primarily perceived in terms of its contribution to the ‘quality of life’ of the mostly urban-based population, by providing beauty ...’ In this discourse, afforestation will be perceived positively if it increases the recreational potential of rural areas. The other three discourses similarly involve distinct judgments about the role of afforestation.

Bishop et al. (2002) identified three key plantation discourses in South Wales valleys: one where plantations were predominantly interpreted as a place of social exclusion, associated with declining population and service withdrawal; one where plantations

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Both natural forests and afforestation were included in their definition of forestry.
were seen as an inclusionary space, forming a space for recreation and other social activities; and one where plantations were ‘differentiated and contested space’ in which:

... Those using the forests [plantations] as a space for walking often complained about people riding motorbikes through the forests [plantations]; older respondents reported tensions with younger members of the community; and managers mentioned conflicts resulting from deviant uses of the forest [plantation] (e.g. arson). (Bishop et al. 2002: 37)

Discourse analyses such as Elands and Wiersum (2001) or Bishop et al. (2002) have not generally examined how to address conflict arising from either dominant or differing discourses. Where they have discussed responses to conflict, they have generally drawn from various of the other hypotheses discussed here to provide solutions. For example, Elands and Wiersum (2001) see increasing participation in decision making about afforestation as the solution to conflicting discourses, although they do not explicitly describe the link between the problem of conflicting discourses and the suggested solution of increased participation, instead drawing on literature recommending increased community participation to achieve sustainable rural development.

3.3.8 Hypothesis Eight: ‘Small is beautiful’ – conflict is caused by the scale and ownership of afforestation

The basis of this hypothesis is that conflict is caused by the ownership and scale of afforestation, and can be solved by shifting to smaller-scale, more diverse, farmer or landowner-based afforestation.

This hypothesis places causation for conflicts over afforestation on the scale of afforestation, both in terms of ownership and geographic area. Conflict is believed to be associated primarily with large-scale planting undertaken by corporations or government61.

For example, Mutch and Hutchison (1979: 111) found that conflict over afforestation occurred mostly when afforestation involved ‘the purchase and planting of whole farms’ in Scotland, rather than only part of the farm. Similar results were found in Australia by

61 This hypothesis has strong links to Hypothesis Nine.
Tonts et al. (2001) and Schirmer (2002). O'Leary and McCormack (2000: 18) reported that in South Leitrim, Ireland:

... it is the type, ownership, administrative control, management and/or economic value of [plantations] that is the source of contention.

The solution presented to conflict under this hypothesis is to change the nature of afforestation. The shift proposed is usually two-fold: to smaller-scale ownership - by farmers or rural landowners – and to smaller areas of afforestation that are ‘integrated’ with traditional agricultural activities. These types of small scale plantings are usually termed agroforestry or farm forestry (e.g. CFPLM 1989; Petheram et al. 2000; Tonts et al. 2001; Schirmer 2002). The benefits argued to result from this shift include: more equitable sharing of the benefits of afforestation; maintaining rural populations; maintaining traditional agricultural activities; environmental benefits; and diversification of farm income (CFPLM 1989; Cossalter and Pye-Smith 2003):

Farm forestry, in particular, has the potential to generate real environmental, social and economic benefits for rural communities if planned and managed properly. (An Taisce 1990)

The promotion of smallholder tree-growers is necessary to meet the aspirations of many stakeholders/actors to have a fair share of the cake. (Tewari 2001: 349)

In Ireland, some authors argue that shifting away from large-scale afforestation to smaller-scale afforestation undertaken by farmers has reduced conflict over afforestation (Bulfin and Hendrick 1998; O'Leary and McCormack 2000).

Extensions of this hypothesis have been made which broaden its principles to call for afforestation designed to meet the specific environmental and cultural needs of different regions (e.g. Morrison and Bass 1992: 106). This may require a range of types of afforestation, involving ‘a broader conception of plantation forestry and range of plantation forestry, and a more intimate integration with other land uses’ (Kanowski 1997: 5). This addresses the criticism made by Rickman (1991) that:

The underlying fault is a species of egalitarianism, from which too many people unthinkingly suffer. They hope that forests [plantations] can be all things to all people ... all forests [plantations] are not equal and for immutable reasons of location, climate and soil type they never will be.
At the same time that smaller-scale or more diverse forms of afforestation have been recommended as a solution to afforestation conflict, a considerable literature has been devoted to trying to overcome reluctance by landholders to adopt farm forestry, as described in Hypothesis Two.

As well as these apparent problems with adoption, some authors argue farm forestry/agroforestry have had negative social outcomes, particularly where small growers have been contracted to grow trees for large companies (e.g. Marchak 1995; Carrere and Lohmann 1996; Lang 2002):

One of the pulp and paper industry's 'solutions' to problems of large-scale plantations, is to encourage contract tree farming, whereby farmers grow the trees on their own land ... Contract tree farming effectively passes on risks associated with growing fast-growing tree plantations from pulp and paper companies to farmers. (Lang 2002: 103)

Supporters of the hypothesis argue that these types of negative outcomes result from farm forestry being implemented in ways other than those advocated. However, it is equally possible that agroforestry/farm forestry implemented in the ways its supporters advocate has potential to cause conflict, but that lack of adoption has prevented occurrence of that conflict on a large scale. More in-depth examination is needed of whether shifting from large-scale planting to smaller/more diverse forms of afforestation leads to positive change in conflict.

### 3.3.9 Hypothesis Nine: Afforestation conflict is the result of profit-driven afforestation occurring at the expense of non-economic values

Some argue that conflict is the result of inappropriate afforestation, which is a result of pressures to maximise profitability of plantations in a global economy which favours the rich over the poor, and fails to acknowledge non-economic values.

This hypothesis is most commonly expressed by environmental advocacy groups:

... the EA [Environmental Advocacy] coalition believes ... that the current success of commercial forestry [plantation management] is achieved by damaging the environment, and that the major objective of commercial forestry [plantation management] is profit, not protection of the environment. (Tewari 2001: 430)
This hypothesis argues that large corporations and government agencies focus on achieving profit to the detriment of non-economic values, causing social and environmental damage. This argument is usually associated with a strongly held view that large industrial plantations are unsustainable economically, socially and environmentally, and that large-scale industrial production is often – if not always – in opposition to the livelihoods and social structures of rural communities (e.g. Carrere and Lohmann 1996; Carrere 1999; WRM 1999).

Morrison and Bass (1992) identify that criticisms of plantations in the media and by democratic movements are often based on the planting of trees for economic gain. For example, many of the papers in a compilation of testimonies criticising afforestation, published by Friends of the Earth International, the World Rainforest Movement and FERN (Friends of the Earth International et al. n.d.), imply that underlying economic structures have caused conflict over afforestation in countries including Ecuador (Buitron and Ricardo n.d.), the Australian state of Tasmania (van der Maesen n.d.), Paraguay (Lovera n.d.), Indonesia (Miettinnen and Lammi n.d.), Columbia (Velez n.d), and Costa Rica:

[Afforestation] Companies arrive with their aggressive policies to achieve their economic goals without any wish to understand history, culture or even more basic issues like the state of land tenure in the region. (Baltodano n.d.: 5-6)

Under this hypothesis, blame is laid on those regulating afforestation as well as those undertaking it. Regulators are argued to be failing their mandate to protect the public good. Carrere and Lohmann (1996) build an even broader case, arguing that inappropriate afforestation (in their case, large scale monocultural plantings) is not the result of a simple conspiracy, or of free market mechanisms, but rather the result of a multitude of agents who knowingly or unknowingly work to achieve an agenda ultimately set by the needs of richer countries and organisations, including pulp and paper firms, government, bilateral and multilateral agencies, research institutes and non-governmental organisations (NGOs).
Critics of this hypothesis argue that the market is the most appropriate mechanism for driving afforestation, and that inappropriate afforestation results from market failure. These critics include, in some cases, members of rural communities:

... the gradual acceptability of this use for land [afforestation] has been brought about, largely, by producer organisations [e.g. farming advocacy organisation] adhering, as they do at present in New Zealand, to the requirement of profitable production, mainly for export. (Le Heron and Roche 1985: 212)

Those advocating privatisation of Britain’s State owned plantations in the late 1980s argued privatisation would allow the marketplace to make appropriate decisions, whereas decisions to date had been inappropriate due to their reliance on ‘the transient whims of the politician’ (ASI (Research) Ltd 1988: 19). However, Mayers and Bass (1999: 26-28) discuss problems with this ‘market mantra’, identifying three key areas of market failure: many goods and services provided by forests and plantations are not traded in the market; environmental costs are usually not incorporated into the price mechanism; and markets often distribute wealth inequitably.

Some researchers have examined the impacts of afforestation undertaken by large and/or multinational corporations. Marchak (1995) provides examples of corporations whose actions have resulted in social benefits, and those whose actions have caused social costs. Cossalter and Pye-Smith (2003: 41) conclude that:

... many people resent fast-wood plantations partly because they disapprove of large corporations, especially those with multinational interests. ... It could be argued that this is more of a value judgment than a rational analysis ... Clearly, some corporations behave honourably towards their employees and local communities; others don’t. Some manage their operations in a very transparent way; others don’t.

Solutions to conflict proposed in association with this hypothesis are many and varied, but almost always revolve around empowering communities to oppose the takeover of their land and interests, so that a shift to smaller-scale, more diverse and/or community-based afforestation can occur. This is argued to require significant change in the structure of the institutions that support large-scale afforestation (e.g. Tompkins 1986), although methods for achieving this are not generally proposed.
3.4 Comparing theories on responding to conflict

The nine hypotheses discussed above provide a wide and varied range of approaches to understanding, and hence responding, to conflict. These approaches appear at first glance quite different to those identified in Chapter 2. In general, the literature on afforestation conflict appears to have developed without reference to broader theories on responding to conflict.

However it is possible to situate the different suggestions made for responding to afforestation conflict within the four broad categories of response identified in Chapter 2 – denial, adversarial, cooperative and transformative responses. This is shown in Table 3.1.

Table 3-1: Comparison of conflict responses suggested by general and afforestation-specific conflict theories

<table>
<thead>
<tr>
<th>Hypothesis</th>
<th>Suggested responses to conflict</th>
<th>Type of conflict response (denial, adversarial, cooperative, transformative)</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Afforestation conflict symptom of broader conflict</td>
<td>Resolve underlying conflict</td>
<td>Transformative</td>
</tr>
<tr>
<td>2. Afforestation conflict is a result of misperception and cultural resistance</td>
<td>Dismiss/ignore conflict</td>
<td>Denial</td>
</tr>
<tr>
<td></td>
<td>Delegitimise critics</td>
<td>Denial</td>
</tr>
<tr>
<td></td>
<td>Disseminate information</td>
<td>Difficult to situate within a particular category as may form part of denial, adversarial, or cooperative response</td>
</tr>
<tr>
<td>3. Conflict is caused by competition for scarce resources (e.g. land)</td>
<td>Reduce competition for land</td>
<td>May be adversarial, cooperative or transformative depending on approach used to lessen competition</td>
</tr>
<tr>
<td>4. Conflict is caused by lack of scientific information</td>
<td>Gather objective evidence to support decision making</td>
<td>May be adversarial, cooperative or transformative depending on approach used to lessen competition</td>
</tr>
<tr>
<td>5. Conflict is caused by institutional failure</td>
<td>Range of specific recommendations on types and forms of planning,</td>
<td>May be adversarial, cooperative or transformative depending</td>
</tr>
</tbody>
</table>

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<table>
<thead>
<tr>
<th>Hypothesis</th>
<th>Suggested responses to conflict</th>
<th>Type of conflict response (denial, adversarial, cooperative, transformative)</th>
</tr>
</thead>
<tbody>
<tr>
<td>6. Conflict is caused by lack of participatory decision making processes</td>
<td>Use participatory decision making processes</td>
<td>Cooperative</td>
</tr>
<tr>
<td>7. Conflict is caused by dominant or conflict discourses</td>
<td>Tend to draw on other hypotheses to present solutions – e.g. use of participatory processes</td>
<td>-</td>
</tr>
<tr>
<td>8. Conflict is caused by the scale and ownership of afforestation</td>
<td>Change scale and ownership of afforestation</td>
<td>May be seen as transformative, but recommends a particular change to afforestation, rather than particular response process</td>
</tr>
<tr>
<td>9. Conflict is the result of profit-driven afforestation occurring at the expense of non-economic values</td>
<td>Change how afforestation is undertaken</td>
<td>As above</td>
</tr>
</tbody>
</table>

From Table 3.1, it is evident that recommendations on responding to afforestation conflict do not fit neatly into the different types of response processes recommended by many conflict theorists. The lack of fit largely occurs where recommendations on responding to conflict focus on the types of changes believed to be needed to the practice if afforestation, rather than on the process to be used to identify these changes. This reinforces the concerns discussed in Section 2.8 about the tendency of conflict response literature to focus on process-based responses to conflict.

**3.5 Discussion**

The literature on afforestation conflict is fragmented and contradictory, with views on conflict often discussed only in passing as part of examination of a broader topic, or only briefly to support the recommendation of particular policies or strategies. The available literature has been produced largely by groups who are themselves involved in afforestation conflict and who may be using this literature as part of that conflict. Some
academic studies have been undertaken; rather more descriptive and polemic literature has been produced.

However, writings on afforestation conflict share one thing: they are mostly unconstrained by any reference to broader literature on responding to conflict. As a result, they propose a wide range of processes and actions to address conflict. Nine theories, all involving different understandings about the nature of conflict and how to respond to it, were identified from literature readily available in English, which most likely represents only a partial representation of writings on afforestation conflict. These theories variously recommend doing nothing, trying to convince others they are wrong, changing how afforestation is undertaken, and transforming global economic systems.

Those affiliated with the afforestation industry are more likely to see conflict as resulting from misperceptions, miscommunication and institutional failure. Critics of afforestation, particularly ENGOs, are more likely to argue the cause of conflict lies with exploitation or other intentional or unintentional harm of rural communities by large corporations, supported by governments which fail to regulate or provide inappropriate incentives for afforestation. Government representatives tend to argue for changes to institutional settings including regulations and policy. These different perspectives may in themselves help explain why conflict occurs and continues over afforestation: if conflicting groups cannot agree on how best to act on the conflict they are engaged in, they are unlikely to achieve successful change in that conflict.

Each theory appears to be relevant to some, but not all, of the topics of afforestation conflict outlined in Chapter 1. Given the diversity of concerns and disputes occurring over afforestation, it is reasonable to expect that different afforestation conflicts may have different causes, and that the same conflict response may not be appropriate for all afforestation conflicts. It follows that it is likely that all nine hypotheses presented above have some validity in explaining aspects of afforestation conflict, and hence in suggesting responses to it. For example, concerns over physical impacts of afforestation such as chemical use or soil erosion would appear to lend themselves to explanation using Hypothesis Four in which scientific solutions can address conflict. Concerns over the social impacts of afforestation, meanwhile, have stronger links to Hypotheses Eight
and Nine on the scale and ownership of plantations, and the influence of global market pressures.

While many hypotheses are presented both explicitly and implicitly in available literature, few have been actively tested. Instead, hypotheses are drawn from underlying assumptions about the nature of conflict, supported by selective rather than systematic evidence.

Apart from making broad statements about conflict ‘improving’ or ‘worsening’, there is effectively no attempt in the literature reviewed to provide clear criteria for evaluating where and why conflict is believed to have changed for the worse or the better. Without consistent examination of how levels of conflict have changed over time, it is not possible to assess whether responses implemented to conflict have been successful or otherwise. Most studies reviewed examined a single point in time, reviewed historical data without estimating levels of conflict, or relied on personal experience or anecdotal evidence when discussing changes in conflict. Criteria for assessing change in conflict are required.

Perhaps the most obvious gap in the literature, however, is simply a lack of studies whose purpose is to study conflict. Most of the studies reviewed were undertaken for purposes other than examining conflict processes – whether it was to find ways of encouraging more afforestation, of achieving a shift to more diverse forms of afforestation, or trying to find the best regulatory modes with which to govern afforestation. While these purposes all involved discussing conflict, albeit often without naming it, they did not provide space to examine the full range of actions taken in conflicts, or whether different responses had successfully changed conflict.

Despite the literature on afforestation conflict not drawing on broader theories of conflict, there are several parallels with the broader conflict literature. In particular:

- Similarly to those who call for conflict ‘transformation’, Hypotheses One and Nine both argue that broader social and economic conditions are generating afforestation conflict, and that these conditions to be transformed for conflict to be addressed;
• Calls for more participation in decision making (Hypothesis 6) and, to a lesser extent, theories of divergent discourses (Hypothesis 7) have links to theories on cooperative responses to conflict;

• Competition for resources (Hypothesis 3) is an oft-discussed cause of conflict in both general and afforestation-specific conflict literature; and

• Recommendation of improved regulation (part of Hypothesis 5) has some relatively tenuous links to theories of adversarial responses to conflict, although much regulation does not involve traditional forms of adversarial response.

Where the two literatures differed was in the level of linkage between the proposed causes, evolution and characteristics of conflict, and the proposed responses to conflicts. Much of the literature reviewed in Chapter 2 fails to examine whether different responses are needed to different types of conflict. Instead, a relatively limited range of processes are recommended, based on the assumption that these processes will facilitate reaching the type of solutions suggested in the afforestation literature. The underlying assumption appears to be that if the right process is implemented, allowing groups to communicate effectively, they will reach the right solution - whether it be changing regulations, planting different types of trees, agreeing on scientific evidence about impacts of afforestation, or reducing competition for agricultural land. The literature reviewed in this chapter, however, tends to advocate different responses to conflict depending on the hypothesised causes of conflict (e.g. misunderstanding, competition for resources).

This presents two key questions for this study:

• Does implementation of the ‘right’ process lead to development of solutions that successfully change conflict for all types of conflict?

• Can solutions be developed in the absence of the types of processes recommended by current theories of conflict response?

Answering these questions requires more explicit study of afforestation conflict, and examining similarities and differences in the path of different conflicts over afforestation.
3.6 Conclusion

The literature on afforestation conflict suggests many theories about the causes of, and possible responses to, this conflict. Some have clear parallels to broader theorisations of social conflict; others do not. Almost no studies have explicitly aimed to evaluate the outcomes of particular strategies used to try to prevent, resolve, manage or otherwise act on conflict. Most studies have examined only one point in time, have examined only one region or at most two, and have examined only one or two of the many potential influences on conflict over afforestation. There is a clear need for a more thorough examination of conflict over afforestation.

There is also a clear need for more detailed study of whether recommended responses to conflict work, and why. What responses are successful, and in what circumstances? What characteristics of conflicts affect the success of different responses?

Identifying an appropriate methodology for undertaking this type of study is challenging, as most of the studies reviewed had not developed a robust methodology for evaluating outcomes of conflict. This is discussed in the next chapter.
4 Methods and methodology

4.1 Introduction

From the literature reviewed in Chapters 2 and 3 it is apparent that, while there are many theories which recommend responses to conflict, few studies have examined whether and when the implementation of these responses has been followed by successful change in conflict.

This study contributes to filling this gap, by evaluating and exploring the success or otherwise of different responses to afforestation conflicts, as well as the difficulties of evaluating changes in conflict.

Authors such as Stern and Druckman (2000) have called for more systematic studies to be undertaken to examine the success or otherwise of past conflict interventions. The methodological approach used in this study was designed to respond to this call. The methods used needed to be appropriate for identifying different afforestation conflicts, evaluating how each conflict had changed over time, and identifying the processes and factors that might explain why a conflict did or did not change positively.

I chose to use narrative, discourse and media analysis within a comparative historical analysis (CHA) framework. CHA was used as it can incorporate the use of narrative, discourse and media analysis - all common techniques for studying conflict - while providing a more structured framework for systematic qualitative analysis of the success or otherwise of different responses to conflict.

The first part of this chapter uses the findings of the literature review to ‘unpack’ the two study questions presented in Chapter 1. This provides a basis for then examining the conceptual and methodological issues in identifying afforestation conflicts, and evaluating and explaining changes in each conflict over time. The choice and use of CHA, narrative analysis, discourse analysis and media analysis is explained, and the advantages and shortcoming of these approaches are reviewed. The second section describes the methods used, giving details of data collection and analysis techniques, and how ethical issues were addressed.
4.2 Refining the study questions

In Chapter 1, two key study questions were defined:

- What types of conflict response are associated with successful change in afforestation conflict?
- To what extent are current theories on responding to conflict applicable to conflict over afforestation?

Chapters 2 and 3 identified a range of theories of conflict response from both the general and afforestation-specific literature on conflict, and some key differences in the nature of the responses suggested in these two literatures. This review was used to develop a set of more specific research questions:

- Have the following types of *general* conflict response been associated with successful change in afforestation conflict?
  - Denial;
  - Adversarial;
  - Cooperative; or
  - Transformative.

- Have the following specific afforestation conflict responses been associated with successful change in conflict?
  - Resolving underlying conflict;
  - Dismissing/ignoring conflict;
  - Delegitimising critics;
  - Disseminating information;
  - Reducing competition for land;
  - Gathering objective evidence to support decision making;
  - Changing or implementing new forms of policy, regulation and/or incentives for afforestation;
> Making decision making processes more participatory;
> Changing the scale and ownership of afforestation; or
> Changing other aspects of how afforestation is undertaken.

Answering these questions required studying cases in which these different responses have been used to attempt to address conflict over afforestation. The methodology designed needed, therefore, to identify a way in which:

(a) multiple cases of conflict response could be examined;
(b) enough detail could be examined in each case to assess whether conflict had changed successfully in association with a particular type of response; and
(c) factors that may have affected the path of particular conflicts other than the conflict response used could be assessed.

This required examining multiple cases of conflict in enough depth to assess whether the conflict changed successfully, and why. CHA was chosen as the most effective way of achieving this.

4.3 The comparative historical approach

In recent decades, use of CHA has experienced what has been termed a 'dramatic reemergence' as a legitimate and expanding field of social inquiry (Skocpol 1984; Mahoney and Rueschmeyer 2003: 3; Skocpol 2003). While CHA covers a diverse range of qualitative and quantitative approaches:

It is defined by a concern with causal analysis, an emphasis on processes over time, and the use of systematic and contextualized comparison. (Mahoney and Rueschmeyer 2003: 6)

The combination in CHA of comparison of cases and examination of unfolding events over time provides a depth of analysis not achievable by comparing multiple cases at a single point in time, or examining a single case over time.

By testing a theory across different cases, the variance in conditions is increased (Lipset 1968: 34). The comparisons made may be across different temporal periods as well as different spatial regions (Lieberman 2001):
... it is only through comparisons that the particular characteristics of different social situations and relationships can be distinguished from their more general, universal features (Crow 1997: 9)

Historical analysis, meanwhile, allows the timing of events to be explicitly analysed as a key factor affecting outcomes. Static approaches risk explaining an outcome based only on variables occurring at the same time as the outcome (Abbott 1990).

CHA can be designed in multiple ways to test, question, enrich and add to theory. For example, CHA may be used to test a theory across an ever-increasing number of regions; or across a smaller number of widely differing regions explicitly selected to test the boundaries of existing beliefs and theory. It is used to identify the conditions under which particular theories hold (Amenta 2003; Goldstone 2003; Mahoney 2003a; Mahoney and Rueschmeyer 2003: 9):

CHA does not start out by assuming the existence of, or by seeking, universal causal or other patterns; rather, it assumes that the degree of generality of any particular causal mechanism or pattern is variable. (Goldstone 2003: 44)

CHA allows for development of multi-causal explanations that explicitly incorporate structure and agency as well as path-dependence of events over time to explain outcomes, with multiple forms of explanation encouraged:

... far from there being one right way to approach explanation in historical sociology, scholars seeking to study historical phenomena need to be aware that different forms of explanatory principles, differently emphasizing the role of initial conditions, general laws, and path dependency, are necessary to explain different kinds of historical relationships. (Goldstone 1998: 829, emphasis in original)

62 Skocpol and Somers (1980) and Skocpol (1984) argued that there were at least three different ‘logics-in-use’ of CHA:

- macro-causal analysis, in which researchers test multiple variables that are thought to potentially have caused a particular outcome – in other words, drawing out causal inferences;
- parallel demonstration of theory, where researchers build support for a hypothesis by showing it holds true in different cases; and
- contrast of contexts, in which the ways unique features of different cases affect broader social processes are explicitly examined.

Each approach has advantages and limitations; Skocpol and Somers (1980: 187) spent considerable time examining how works of comparative history sometimes combine (especially in pairs) the major logics, hopefully with the result of combining the best aspects of each approach.
CHA is not a replacement for large-scale statistical studies and makes no claims to produce results based on statistical inference. It is, however, a useful approach to exploring the validity of theories in different contexts and, by doing so, building on theory through context-rich examination of a small number of cases (Goldstone 2003).

A key criticism of CHA is that it provides less scope for production of generalisable theory than large-N studies (which, of course, have their own disadvantages) (Amenta 2003). In addition, the theories and questions shaping the choice of case studies may lead to particular outcomes – although in the context of testing and challenging existing theory, or producing new theory for subsequent testing, there is nothing inherently inappropriate about explicitly designing a case study to challenge a hypothesis.

There is also concern that a CHA may identify many factors that potentially affect outcomes. When tested on only a small number of cases, this may result in multiple explanations for the same events (Lijphart 1971; Amenta 2003, Rueschmeyer 2003):

There are often too many hypotheses chasing too few observations, making it difficult to rule out some plausible alternative hypotheses. (Amenta 2003: 105)

The principal problems facing the comparative method can be succinctly stated as: many variables, small number of cases. (Lijphart 1971: 685)

Increasing the number of comparisons is the key approach used to address both this issue and that of producing generalisable theory. In particular, using both across-case and within-case comparisons helps to increase the number of comparisons made from a small number of cases (Lieberman 2001; Mahoney 2003b; Rueschmeyer 2003: 325).

CHA provides a way of answering the specific questions posed in this study – specifically, the question of whether use of particular conflict responses is associated with positive change in conflict across a range of cases and contexts.

A wide range of approaches may be used within the field of CHA. The following sections describe the CHA used in this study, focussing on:

- The role of theory in shaping design and analysis of the study;
- The approach used to select case study regions, including the geographic scale and time periods examined;
• The approaches used to analyse individual conflicts – structured narrative analysis incorporating discourse and media analysis, and development of specific criteria to evaluate whether conflicts had changed ‘successfully’ over time; and
• The conceptual approach to making comparisons within and across case studies.

4.4 The role of theory

Some CHA practitioners use an inductive approach in which theory is generated from case studies. However, purely inductive approaches – most famously, grounded theory – have been criticised for a range of reasons (e.g. Kiser and Hechter 1991), particularly for the assumption that it is possible to undertake a study without subtly shaping it to answer preconceived ideas or directions:

Authors choose evidence selectively, clean up subjects’ statements, unconsciously adopt value-laden metaphors, assume omniscience, and bore readers. (Charmaz 2000: 521)

This criticism leads to the view that it is best to shape research using existing theory. However, theory-driven approaches are also often criticised due to concerns, amongst others, that ‘explicit theorizing imposes jargon on the facts, risks ignoring disconfirming evidence, and mitigates against contingent explanations...’ (Quadagno and Knapp 1992 discussed by Boswell and Brown 1999: 156).

Despite the potential limitations of the approach, existing theories on responding to conflict were used to help design this study, as:

Such reflection not only shapes the questions and the premises of the case analysis, it also links them to earlier scholarship and thus to analytic work on other instances of the issues under investigation. It therefore increases – if indirectly – the number of cases on which conclusions are built. (Rueschemeyer 2003: 317)

General theories and midrange theories are used explicitly by comparative historical researchers to identify populations of cases appropriate for comparison, formulate orienting concepts, and suggest initial hypotheses about causal processes that may be important. These populations, concepts, and hypotheses may then be refined or rejected in light of historical and comparative evidence from real cases. In the actual practice of research, this dialogue between theory and history typically goes through many iterations before final conclusions are reached. (Mahoney and Rueschemeyer 2003: 20)
Some logic is clearly needed to underpin the selection of the boundaries for a CHA. For example, when examining afforestation, should a history of a conflict include contextual events such as an upturn in the Irish economy, or a reduction in the loss of population from the case study region being studied? Choices such as these must be made explicit or else the reliability of the study is reduced, and for this reason existing theories of conflict were drawn on. The literature review chapters set out the different ‘theoretical expectations’ this study was designed to examine.

I used an analytic-inductive approach to analyse data. An analytic-inductive analysis is designed to overcome the challenges of both inductive and deductive approaches, following Boswell and Brown’s (1999: 180) argument that ‘the most obvious solution is to apply an ensemble of approaches such that each succeeds where the others are deficient’, and Mahoney and Rueschmeyer’s (2003) view that a constant ‘dialogue between theory and history’ should be used.

I used the theories set out in Chapters 2 and 3 to select the data to be included in the CHA. However, where new data or theories were suggested by interview respondents or emerged in the process of collecting and analysing data, they were included in the study. Where existing theories could not adequately explain outcomes, further data was sought and new or refined theories developed. These were then examined in light of the evidence gathered in the study, and further refinements developed as appropriate. This iterative analytic-inductive process allowed for use of both existing theory and development of new theory from the data gathered in the study.

4.5 Selecting case studies

When selecting case studies for CHA, the first question is ‘what is a case?’ This is not necessarily easy to answer. Rueschmeyer (2003: 319), for example, points out that:

…it is deceptive to speak … of a single case. In reality, it might be argued [comparative historical] studies agglomerate conglomeries of explained phenomena into what is then presented as one case.

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63 Defined as ‘problem formulations, conceptualizations, and reasons … pointing to factors likely to be relevant for different outcomes’ (Rueschmeyer 2003: 317-318).
Ultimately, the definition of a ‘case’ depends on the questions being asked of the case. In this study, a case needed to involve conflict over afforestation. This was the overarching boundary used to define cases. This definition, however, ultimately led to a series of embedded case studies being identified within two broad case study regions, as multiple conflicts occurred over afforestation at the same time and in the same locations. While the boundaries of a case are often defined by its geography and/or time frame, in this study multiple cases existed within these boundaries, and hence there was interaction between cases – for example, the same actors were sometimes involved in multiple conflicts.

As well as defining what constituted a ‘case’, an appropriate approach to selecting comparable cases was needed. Typically, the choice of regions and timeframes for comparison in CHA is based on researchers selecting cases ‘that exhibit sufficient similarity to be meaningfully compared with one another’ (Mahoney and Rueschmeyer [2003: 8]; see also Amenta [2003]).

In particular, it is important to achieve conceptual equivalence – to ensure comparable concepts are identified across cultural boundaries (Elder 1976; Hunt 1995; Koopmans 1999; Rueschmeyer 2003). Many recommend comparing regions of sufficient similarity to ensure conceptual equivalence is achieved (Elder 1976). Alternatively, it can be argued that varying cultures should be compared, as the variance provides a rich source of data on factors influencing the phenomena being studied.

In this study, conceptual equivalence could only be established to a limited extent prior to undertaking the case studies. Ideally, detailed criteria of similarity and difference should be established and used to select case studies, preferably based on knowledge of all possible cases that could be studied (Elder 1976; King et al. 1994). Bates et al. (2000: 696), however, argue that while this would be ideal, it is unrealistic as:

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64 The question of what constitutes sufficient similarity is, according to Mahoney and Rueschmeyer (2003), defined by the theoretical framework being used – in other words, by the focus of the study and the questions being asked. Regions that appear dissimilar in other respects may exhibit considerable similarity with respect to a particular topic or theoretical question.
... only after acquiring a significant understanding of the phenomenon – that is, only after much if not all the research has been concluded – can a scholar have any prospect for defining the larger universe of events.

In this study, it was impossible to identify the entire population of potential cases, as this would have required undertaking in-depth case studies in all regions where afforestation had taken place. Time and resource constraints meant that study regions had to be chosen based on the incomplete information available on afforestation conflict from sources such as media, government and ENGO reports.

Potential cases of afforestation conflict and lack of conflict were searched for by:

- Identifying all regions where large-scale afforestation had taken place, using sources such as FAO (2001); and


From this initial exploration, no instances were found where large-scale afforestation had taken place without the occurrence of at least some social conflict. This was problematic, as it suggested the likelihood of selection bias – by selecting cases based on presence of the variable of interest (in this case, presence of afforestation conflict), the study might find many factors correlated to conflict which may also be present in cases where conflict did not occur (Dion 1998).

Ideally, cases where conflict did not occur needed to be included in the study (Olzak 1989). From the limited data available, it appeared that there were some time periods within different regions during which little or no conflict was reported over afforestation.

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65 It should be noted that some argue that this is an overly strict interpretation of causality, and that ‘selecting on the dependent variable is perfectly admissible if one is evaluating necessary (as opposed to sufficient) conditions’ (Dion 1998: 127).
The problem of selection bias was therefore overcome as far as possible by examining periods over which levels of conflict varied, to enable times of ‘low/no conflict’ to be compared to times of ‘high’ conflict within different conflicts.

4.5.1 Geographic scale

The use of comparative studies has often been restricted to relatively large-scale studies, aiming to compare societies or nations. In recent years, however, more diverse scales, topics and regions have been examined in comparative studies (Snyder 2001; Mahoney and Rueschmeyer 2003).

The geographic scale at which a ‘case’ is studied should be, according to King et al. (1994), the one at which the phenomena or process being examined takes place.

In this case, the scale of study needed to be appropriate to studying afforestation conflict. From the literature review, it was apparent that conflict over afforestation occurred at a range of scales, from disputes between neighbouring landholders up to conflicts acted out at a national scale.

To capture different scales of conflict, case study regions were chosen on the basis that locally occurring disputes could be examined within the region, while nationwide conflicts over afforestation could be explored with a focus on their impact on the region. This allowed exploration of the diversity of conflicts occurring over afforestation, while also allowing in-depth qualitative exploration of events and perspectives within conflicts.

This choice, however, implied a need to undertake comparisons of different conflicts occurring within the same geographic boundaries and timeframes, as well as comparison of conflict occurring across different geographic spaces and timeframes. This approach is advocated by many CHA practitioners (e.g. Mahoney 2000):

... comparative historical work that uses both within-case and cross-case analysis can explore more complex interactions among causal factors, it can better trace multiple paths of causation, and it does not make the assumption of a linear relation between independent and dependent variables ... (Rueschmeyer 2003: 324)
Conflicts occurring in the same space and time are likely to influence each other and cannot be seen as completely separate, independent events. Because of this, cross-region comparisons are very useful. However, it is important to recognise that interaction is likely to occur across regions as well as within them (Snyder 2001). For example, actors in conflicts may meet and share experiences and strategies that are then implemented across many nations. Despite increasing interaction across cases, however:

... growing interconnectedness by no means does away with difference ... comparisons continue to have a vital role to play in the analysis of the modern world provided it is recognized that societies are not completely self-contained units. (Crow 1997: 6)

Using both within and across case comparisons reduces the problem of ‘few cases, many variables’, as discussed above, although the limitations of small numbers of cases will always remain, as do the limitations of historical explanation which is, in the end, shaped by the unique paths taken in the small number of cases available for examination (Rueschmeyer 2003: 326-327).

4.5.2 Time period

Examining conflicts over time allows potential influencing factors to be analysed not just in terms of their presence or absence, but also their location in time and the degree to which they occur at particular times (Mahoney 2003a: 152):

When dealing with time periods, two cases can be related not only through comparisons and contrasts but also through sequences of events. This characteristic presents distinctive opportunities and difficulties ... (Haydu 1998: 340, emphasis in original)

Causal processes may occur as steady changes; as abrupt changes where shifts are caused by reaching some type of threshold; or as part of complex chains of multiple events, which must be shown to be related over time (Pierson 2003). It is important to study a time period that allows observation of these different processes.

Mahoney (2000: 537) suggests ‘that the period immediately preceding a critical juncture marks a reasonable point in time for specifying the beginning of the sequence’ for some types of narratives. This may apply both to selecting an overall time from which to start analysis, and to dividing a history into a series of ‘periods’ which may be compared with each other, a division which can be challenging (e.g. Lieberman 2001):
How do we rethink “cases” when one case becomes another over time? How do we select and organize events into explanatory rather than merely temporal sequences? (Haydu 1998: 349)

In this study, the often problematic question of where to start and end a narrative (Abell 2004) was relatively easy to answer. The juncture points of (a) emergence of conflict and (b) changes in conflict were used to structure narratives. However, selecting how far to go into the past to identify antecedent influences on conflict was more difficult. In general, the period studied started from the time when commercial afforestation began in the case study region, up to the time at which data were collected for this study. However where the theories reviewed in Chapters 2 and 3, or the respondents interviewed for the case studies, identified factors potentially affecting conflict that occurred before afforestation began in the region, the period studied was extended to include these factors.

4.5.3 The case studies

The criteria used to select case study regions were based on the principles discussed above:

- Afforestation consistent with the definition in Chapter 1 needed to have occurred in the region;
- Conflict over afforestation needed to have varied over time, to allow comparison of factors associated with the presence and absence of conflict; and
- The regions needed to be sufficiently similar to allow comparison across case studies. In this study, sufficient similarity was defined as similarity in broad institutional systems, including government, private sector and non-governmental organisation structures.

Practical considerations meant that the regions studied needed to be English-speaking, to facilitate data collection and analysis.

A large number of case study regions met these fairly broad criteria. While it would have been preferable to design more explicit criteria – for example, by identifying different types of conflicts occurring over afforestation within each potential study region – it was not possible to gain this level of knowledge without undertaking a case
study. Therefore, the regions studied were determined primarily by cost and accessibility of information.

From an initial search of likely sources of data, two regions were selected: the Great Southern region of Western Australia, and County Leitrim in the Republic of Ireland. While many other regions would also have been suitable for study, these two regions had accessible media and documentary sources allowing in-depth examination of conflict. In both there was some evidence of conflict occurring over afforestation. Both had experienced changes in the level of afforestation over time, and the afforestation had predominantly occurred on cleared agricultural land. Each region is described at the start of Chapters 5 and 6.

4.6 Identifying and analysing individual conflicts

While there is strong coherence in the ultimate goals and broad approach of CHA, the methods used in the field are diverse:

Comparative historical analysis is not committed to any single theory or technique – and thus it is splendidly open to synergy and innovation in both areas. (Skocpol 2003: 419)

... the willingness and ability of individual scholars in this literature to combine methodological approaches, sometimes in a single work, is remarkable. (Amenta 2003: 112)

As in most CHA, the methods I used in this study were chosen for their effectiveness in exploring the key questions of the study. The key approach used was narrative analysis, structured using both discourse and media analysis.

4.6.1 Narrative analysis

I used a structured form of narrative analysis to trace events in afforestation conflicts over time, to evaluate outcomes\(^\text{66}\), and to search for explanations of outcomes through within-case and across-case comparisons (Mahoney 2003b). Narrative analysis was used as other methods did not provide the same scope for combining qualitative evaluation of conflict outcomes (discussed further below) with exploration of potential explanations

\(^{66}\) By ‘outcomes’, I am referring to whether a positive or negative change in conflict occurred at some point in time, even if this change was not long-lived. An outcome does not imply that conflict ended, rather that the way disagreements were expressed and acted upon changed in some significant way.
of these outcomes, or for explicitly incorporating temporal dimensions into analysis (Mahoney 1999).

Narratives are:

... analytic constructs ... that unify a number of past or contemporaneous actions and happenings ... into a coherent relational whole that gives meaning to and explains each of its elements and is, at the same time, constituted by them. (Griffin 1993: 1097)

Narrative is by definition contingent upon some temporal ordering of events, with the premise that ‘when a particular event in a sequence occurs will make a big difference’ (Pierson 2000b: 75).

The label ‘narrative analysis’ is applied to a broad range of research (Smith 2000; Abell 2004), ranging from what critics sometimes derisively refer to as ‘story telling’, through to more analytically based arguments about the temporal causality of a particular chain of events (Haydu 1998; Mahoney 2003b).

In general, authors agree that the benefits of narrative analysis across its many forms include that it ‘permits a holistic approach to discourse that preserves context and particularity’ (Smith 2000: 327), and allows direct examination of the interaction of structure and agency in influencing the paths of events (Griffin 1993).

While traditionally used more in the interpretive than constructivist tradition, narrative analysis is sometimes used in studies that aim to uncover causal links and chains of events. Within the field of CHA, narrative approaches have been developed that are specifically designed to analyse causal processes (Mahoney 2004: 92; Pierson 2000b)\(^{67}\).

One of the most common uses of narrative analysis in CHA is to trace how the choices of actors are constrained and shaped by social structures and by past actions and events, a concept often referred to as ‘path-dependency’ in which (Griffin 1993; Haydu 1998):

... outcomes at a critical juncture induce path-dependent processes. Over time, these processes lead to strikingly divergent outcomes, even from initially similar conditions. (Pierson 2003: 195)

\(^{67}\) These include game theoretic approaches. However, in this study a game theoretic approach was rejected as it would presuppose many outcomes about conflict and thus constrain the ability of the study to challenge and build theory about conflict.
The concept of path-dependence emphasises that considerable time may pass between trigger points and outcomes (Hall 2003: 385). Initial events triggering a path-dependent process may set in place a self-reinforcing and increasing feedback - or 'increasing returns' - process, where movement in one direction encourages subsequent movement in the same direction; or alternatively may trigger a series of reactions that build into a chain of outcomes shaped by the initial events (Mahoney 2000; Pierson 2000a,b):

...large consequences may result from relatively small or contingent events; particular courses of action, once introduced, can be almost impossible to reverse; and consequently, political development is punctuated by critical moments or junctures that shape the basic contours of social life. (Pierson 2000a: 251)

A key implication arising from the concept of path dependency is that historical accounts and causal chains are not necessarily linear or uni-directional in terms of cause and effect (Pierson 2003), and that causes are not constant over time and space (Thelen 2003).

Path dependent approaches, while useful, are sometimes accused of failing to address the 'overarching tales' and conjunctions of multiple factors that produce particular outcomes (Haydu 1998: 352).

In this study, I constructed strategic narratives based around existing theories of conflict:

Strategic narrative differs from a straightforward narrative of historical events by being structured to focus attention on how patterns of events relate to prior theoretical beliefs about social phenomena. Strategic narrative selects its elements in response to a clearly articulated theoretical backdrop and focuses on empirical anomalies relative to such theory. (Goldstone 2003: 50)

It can be tempting to claim that, because one event preceded another, the two events are casually related (Mahoney 1999; Mahoney 2003b). However, this is not necessarily the case – two events can happen one after the other in the same place, or involving the same actors, but are not necessarily causally linked. Additionally, multiple events may occur which are not directly linked but all contribute to a particular outcome. Strategic narratives systematically argue how and why events are dependent on each other, developing a temporal chain of events, supported by arguments for the importance of each event (Stern and Druckman 2000; Mahoney 2003b).
Any structured narrative needs to provide adequate justification of claims regarding causal links (Griffin 1993; Mahoney 2003b). Some formal methods of analysing temporal causality have been developed, most notably ‘event-structure analysis’ (ESA), developed by Heise (1989, 1991), in which sequences of events are ordered, and software-generated structured questions are used to systematically analyse events. The researcher is forced to explicitly analyse whether and why an event was dependent on the occurrence of previous events, ensuring that temporal order is not automatically equated with causal relationship (Griffin 1993).

ESA represents the more qualitative end of a spectrum of ‘event history analysis’ (EHA) approaches. The sequencing approach used in ESA is distinctive from other forms of event analysis ‘... because the focus is on using full information on the narrative of events’ (Olzak and Olivier 1999: 257, emphasis in original). However, this approach has tended to ignore macro-scale social structural factors when searching for explanations of chains of events. This can be overcome by explicitly including macro-scale social structural changes as part of the set of events being analysed.

An ESA-style approach was used to structure the explanations in the narrative analysis for this study, although the specific software was not used as it assumes a single linear chain of events which was not suited to the parallel similar events occurring in many of the conflicts studied. As a first step, narratives of the events occurring in different conflicts were developed. The outcomes of the conflicts were evaluated qualitatively, using the criteria set out in Table 4.1 later in this chapter. Then each event occurring in each conflict was examined individually, and the existence or absence of a link between prior events and the outcome of conflict at different stages was explicitly questioned and justified. Essentially, for each event the question ‘was this event necessary for the outcome to occur?’ was asked.

This approach ‘exploits narrative temporality without simply returning’ to narrative’ (Griffin 1993: 1127). However, it still may lead to an assumption of uni-linearity – a chain of single causes, rather than a conjunction of multiple causes (Haydu 1998).

Ragin (1987, 2000) developed an approach based on Boolean, and subsequently fuzzy, logic that explicitly looks for combinations of factors that may lead to particular
outcomes, allowing ‘... for multiple paths to the same outcome’ (Mahoney 2004: 87). In the ESA-based approach used in this study, questions asked of event chains included whether combinations of factors were needed to achieve an outcome, or whether a single factor on its own was sufficient, to incorporate more complexity in the explanations generated. While this approach did not use a formal logic, it did ensure that combinations of influences were searched for in the conflict histories, rather than trying to fit outcomes to a simple linear chain of events.

The ESA needed to be able to incorporate common patterns of interaction occurring in conflict. Tilly (1995) refers to ‘repertoires’ of protest, referring to the development of ‘learned cultural creations that result from the history of struggle’ (Tarrow 1999: 49). These can be shown in an ESA through the existence of repetitive cycles of events that occasionally shift in their form and/or expression. As is shown in the results, ESA is a particularly useful tool for uncovering repertoires of protest, and the critical events that change these repertoires.

A key challenge of ESA is that it is possible to develop two competing versions of events, each with logical but different chains of causal links (Olzak and Olivier 1999). Where this was the case, parallel or competing chains of events are presented in the results and arguments for the role of each in producing outcomes discussed.

4.6.2 Discourse analysis

Discourse analysis (DA) was used to identify different conflicts over afforestation, and to examine the different perspectives expressed within each conflict.

The term ‘discourse’ is defined differently by different people – appropriate to a discipline devoted to uncovering differences in perspectives and understandings of particular phenomena:

It is often difficult to make sense of what people mean by discourse. In many texts, there are no definitions or discussions of what discourse means. Authors treat the term as if the word has a clear, broadly agreed upon meaning. This is simply not the case. (Alvesson and Karreman 2000: 1126)

Discourse analysts examine the social meanings of text, talk and action at scales ranging from the micro-scale of specific words, junctures and grammars used in everyday
conversation, to the meso-scale of ‘mega-discourses’ shaping the way people understand
and shape their social reality (Alvesson and Karreman 2000). Some discourse analysts
examine only communication occurring through talk and text, while others include
social actions and structures beyond ‘talk and text’ (Fairclough 1992; Hajer 1995;
Blommaert and Bulcaen 2000; Sharp and Richardson 2001).

In this study, which focuses on the actions and interactions taking place in conflicts,
discourse needed to be conceived of as applying to more than text and words. Using this
perspective, DA involves analysis of:

...social systems ... in terms of particular orderings of genres and activity types which are
specific to institutional domains and which could be characterized by relationships of overlap,
mutual exclusiveness, etc. (Slembrouck 2001: 36)

Using this understanding, I identified and described different conflict discourses by
examining the areas of overlap and mutual exclusiveness in the words and actions of
individuals and groups involved in conflicts. In other words, discourses were identified
not only by distinctions between the communicative styles used in conflict but also by
the different actions, structures and practices groups took as part of conflicts and how
these evolved over time (after Sharp and Richardson 2001: 198-199).

The use of DA within CHA was not unproblematic. DA is an approach usually
associated with the interpretivist tradition, and often with a rejection of studies
examining causal propositions (Slembrouck 2001). Proponents of CHA, meanwhile,
commonly reject the exclusive focus of interpretive and cultural theorists on meaning
and context, often arguing that interpretive approaches begin from implicit theories of
causality which remain unexamined in interpretive traditions (e.g. Mahoney and

Despite this tension, DA was the most useful approach available for uncovering multiple
narratives about the same events (Goodridge et al. unpub.; Sharp and Richardson 2001).
There is no more pressing need in analysing conflict than to understand the multiple
views and perspectives that form a conflict. In a tradition as methodologically diverse as
CHA, there was considerable opportunity to incorporate DA.
The use of DA was also appropriate to overcome a key criticism of the EHA tradition (including ESA): that it pays little attention to the discursive or qualitative content of conflict (Koopmans and Statham 1999: 35; Stevenson et al. 2003: 3-4). Koopmans and Statham (1999: 35-36) in particular argue for a more discursive analysis of media reports on conflict, arguing that these media reports represent the public claims-making of actors, and hence the interactive discourse on which claims are staked and actions are taken.

The DA undertaken for this study was primarily descriptive, seeking to identify the ways in which different discourses were expressed and changed over time. This differs from the approaches of authors such as Fairclough (1992) who proceed from description to explanation of discourse (Slembrouck 2001: 38). Explanation and interpretation of discourse in this study was limited to examining the reasons for emergence of new discourses and changes in discourses over time, rather than explaining why different discourses existed or judging their validity.

Many researchers in the field of critical discourse analysis (CDA) would reject this descriptive use of DA. Proponents of CDA argue that DA that does not incorporate critical analysis of exploitive social relations, or focus on empowerment of oppressed groups, inherently supports and extends inequitable power relations.

CDA is ‘one of the most influential and visible branches of discourse analysis’ (Blommaert and Bulcaen 2000: 447), to the extent that it is seen by many as synonymous with the term ‘discourse analysis’. Van Dijk (2001: 352) defines CDA as a field which ‘primarily studies the way social power, abuse, dominance and inequality are enacted, reproduced and resisted by text and talk’.

CDA has been criticised on many fronts, most of which are not discussed in detail here (see for example Blommaert and Bulcaen 2000; van Dijk 2001). A key criticism, however, is that proponents of CDA base their analyses on unexplored assumptions about the nature of power relations (Blommaert and Bulcaen 2000: 455-456). CDA requires decisions about which discourses promote and create inequality, which means

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68 Similar definitions are presented by Blommaert and Bulcaen (2000).
researchers must adopt value positions regarding the validity of different discourses. In the context of analysing conflict, this equates to characterising some actors in conflicts as legitimate, and others as illegitimate. This runs the risk of pre-determining answers to the question of how to address conflict.

Using a critical approach to DA was therefore unsuitable in this study. Identifying factors associated with successful change in conflict required, as far as possible, not making value judgments about the rightness or wrongness of different conflict perspectives. Use of CDA would lead inexorably to results supporting perceptions about the nature of conflict inherent in CDA’s presupposition of inequitable power relations, particularly the assumption that there are necessarily ‘oppressors’ and ‘oppressed’ in any power relationship69.

The descriptive DA used, however, ensured different discourses and relationships between them could be identified without prior assumptions of the types of power relations that might exist. It usefully distinguished between different conflicts, and between different perspectives within conflicts.

4.6.3 Media analysis

The news media may play a number of roles in conflict. These include providing a forum for issues to be expressed; communicating the views and perspectives of different groups; and framing conflicts in ways that shape audience’s reaction and beliefs about the issues being reported. The media is not simply a passive actor passing on the messages of others: conscious or unconscious choices of what to report and how to report it have the power to affect the course of conflict; similarly, people influence how the media reports events (Davison 1974; Neuzil and Kovarik 1996).

Media analysis – particularly newspaper analysis - has been used by many researchers as a way of tracking conflict over time, and additionally by some as a way of uncovering different perspectives and viewpoints held in conflicts (see for example Gerner and Schrodt 1996; Koopmans 1999; Schrodt et al. 2001; Althaus 2003).

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69 Many CDA advocates recognise this danger and specifically advocate understanding that ‘in discourse people have different kinds of power and exercise it in different ways’ (van Dijk 2001).
Tracking occurrence of conflict over time is a common application of what is often called event data analysis (EDA) (Olzak 1989). If an issue attracts conflict, it is likely to be reported in the media, making EDA of media reports a common tool for tracking conflict histories70 (e.g. Davison 1974; Terkildsen et al. 1998; Oliver and Myers 1999; Oliver and Maney 2000; Semetko and Valkenburg 2000; de Vreese et al. 2001; Maney and Oliver 2003).

In this study, media analysis was used to develop quantitative indicators of the ‘level’ of some types of afforestation conflict over time (an approach similar to traditional EDA). I also used qualitative media analysis as part of developing narrative histories of afforestation conflicts (as well as using a range of other documentation).

The EDA and qualitative media analysis were used more broadly than is traditional, in response to some common criticism of media analysis.

The first of these issues is how media reports are used to track conflict. Traditional EDA has generally focussed on counting specific types of conflict ‘events’ such as rallies or incidents of violence (e.g. Oliver and Maney 2000). This can exclude events involving groups or processes that have gained political acceptance – creating an overly narrow definition of the types of action that constitute conflict (Olzak 1989; Olzak and Olivier 1999; Rucht and Neidhardt 1999). This type of analysis may also exclude ongoing drawn-out processes which form part of a conflict but are not made up of clear-cut ‘events’ (Schrodt et al. 2004). Rucht et al. (1999: 27) argue that analysts should examine not only ‘protest’ acts but also other activities ‘that influence and are affected by protest’.

Fillieule (1999) found that many ‘protest’ events were organised by institutionalised groups – indicating that protest events should be studied in conjunction with more institutionalised forms of action. Gentile (1999), studying both institutionalised and non-institutionalised actions taken by radical right activists in Switzerland, found that both

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70 Newspapers are used more often than other media sources for EDA, as they represent a regular, easily accessed source of information and are often more complete than other sources of data when it comes to recording incidences of conflict over time (Koopmans 1999).
types of action followed similar cycles, indicating both were useful measures of the intensity of conflict.

Following on from these types of findings, some authors have used a broader definition of conflict events when undertaking EDA or other forms of media analysis. For example, Schrod et al. (2001) defined an event as a broad interaction between actors. Tilly (1995) broadened the events he studied from specific actions to any type of ‘contentious gathering’, although Tarrow (1999) points out that this still ignored the actions taken by individuals in conflict, as well as institutionalised actions.

Koopmans and Statham (1999: 7-8) extended the definition of ‘contentious actions’ to include all actions and meetings between actors:

...it is no longer self-evident that data which is limited strictly to protest events is a good indicator for the level of contention. ... environmental organizations are more likely to make press releases and gain direct access and visibility for their claims on the public agenda, than mobilize mass public protest demonstrations.

In the context of this study, narrow definitions of what constitutes a conflict ‘event’ are clearly inappropriate. Understanding what works to successfully address conflict requires understanding both institutionalised and non-institutionalised, formal and non-formal processes of expressing and acting on conflict.

As well as specific criticisms of the use of EDA, several common concerns are raised about the use of media analysis. In particular, concerns are raised about description bias, selection bias, and how different types of media report the same events (McCarthy et al. 1996; Rucht and Niedhardt 1999; Smith et al. 2001).

Description bias refers to the media misrepresenting or omitting information when reporting an issue, or presenting a particular framing of the issue (Terkildsen et al. 1998; McCarthy et al. 1999; McFarlane and Hay 2003; Earl et al. 2004). The media is argued to bias reports in a number of ways, from subtle use of particular phrasing when referring to particular groups and actors (Smith et al. 2001; van Dijk 2001), to complete omission of reporting of particular view-points.

Many researchers have examined whether or in what ways description bias occurs (e.g. Terkildsen et al. 1998; de Loe 1999). A variety of results have been reported, some
arguing the media generates frames that favour particular actors or create a new viewpoint (e.g. Callaghan and Schnell 2001; Smith et al. 2001), while others argue there is little to no evidence of this (e.g. Arvai and Mascarenhas 2001).

The concern over description bias rests on the argument that what is reported in the media shapes reader’s attitudes. Scheufele (1999: 110-111) argues that empirical data is generally not provided to substantiate this link. Wu et al. (2002: 19) and Stevenson (2002: 13) similarly argue that the power of the media to influence audiences is ‘a key but not easily provable assumption’ of the field of media studies:

... the assumption that [the media] start each day with a blank slate and then shape the public agenda is unrealistic. Events outside the control of the media drive almost all news coverage, and the media’s power to influence them is circumscribed at best. (Stevenson 2002: 13)

Franzosi (1987) emphasises that it is not so much whether the media misrepresent or frame their reporting in a particular way, but when and how description bias occurs, and argues that:

... the type of bias likely to occur in the mass media consists more of silence and emphasis rather than outright false information ... By using the press as a source of historical data, therefore, we risk collecting insufficient, rather than faulty information. (Franzosi 1987: 7)

Selection bias refers to the concern that the media may not report all the events or actions forming part of the phenomena being studied – in this case, conflict (Earl et al. 2004). This has important implications for using media reports to track events over time, and to measure levels of conflict.

There is evidence that media reports can be used to measure the frequency of certain types of events over time, as long as likely omissions in event reporting are analysed (e.g. Franzosi 1987; Schrodt et al. 2001, 2004; Earl et al. 2004). A number of researchers have examined the factors that affect whether an event is reported in the

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71 In a review of studies examining impacts of the media on economic growth, Wu et al. (2002: 23) found that studies had ‘yielded strikingly inconsistent and, in some cases, ambiguous results’. In their own study into the issue, they found the impact of the media on the audience varied depending on the influence of external factors.
media. From these studies, it has been found that an event is more likely to be reported if it:

- Is large in size, e.g. has a large number of people involved;
- Is long in duration;
- Involves conflict of some kind;
- Is located within the reporting ‘catchment’ of the media source being examined;
- Involves violent or otherwise ‘newsworthy’ actions;
- Does not occur at the same time as other prominent newsworthy events; and
- Occurs during the right part of a political or media issue attention cycle, at a time when there is a larger ‘news hole’ to be filled.

McCarthy et al. (1999) also argue that an event is more likely to achieve media coverage if similar events or the same actors have achieved media coverage previously.

Media fatigue is a potential source of selection bias. The theory of media fatigue states that the media is likely to reduce its coverage of a conflict or issue to a low and/or simplified level over time, even if the conflict remains at the same intensity (Gerner and Schrodt 1996, 1998; Schrodt et al. 2004). Exploring media fatigue requires identifying other data about conflict with which to benchmark media reporting.

While the factors affecting levels of media reporting are well known, there is debate over whether selection bias tends to be consistent over time. Oliver and Maney (2000: 496) found that:

Although the largest events had fairly stable and high rates of coverage, there was wide temporal and content variability in the coverage of smaller events.

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72 See for example Molotch and Lester (1975); Snyder and Kelly (1977); McCarthy et al. (1996); Barranco and Wisler (1999); Bendix and Liebler (1999); McCarthy et al. (1999); Oliver and Myers (1999); Oliver and Maney (2000); Woolley (2000); Cartmell et al. (2002); Maney and Oliver (2003); Earl et al. (2004); Koopmans (2004).

73 For example, Gerner and Schrodt (1996, 1998) compared the number of Palestinian deaths to media coverage of the Palestinian intifada. They found initially high levels of media reporting on the intifada, followed by a slump in reporting compared to level of deaths, and then an increase in media coverage back to a relatively steady level.
Woolley (2000) agrees, arguing that media reporting changes in an unstable manner, particularly as the types and utilisation of the mass media change over time. Barranco and Wisler (1999) and Koopmans (1999) however, found that bias tended to be systematic over time, allowing analysts to adjust for its effects:

... despite all the problems of selectivity and bias one can think of at the theoretical level, the method of gathering protest events through newspapers seems much more robust, reliable and replicable than one might think. (Koopmans 1999: 108)

Another question often asked is whether media reporting differs depending on the type of media\(^\text{74}\). Local papers were used extensively in this study and, as such, it is worth exploring theories on how this type of media reports conflict.

Barranco and Wisler (1999) found that larger-scale newspapers tended to report mostly events involved large/violent protests while local newspapers reported a wider range of conflict events. Oliver and Myers (1999: 43) similarly found that:

... regional news media cover a much higher proportion of the events within their catchments than do national media ... a collection of regional newspapers may provide a much more comprehensive documentation of events than any national newspaper ever could.

Much research using local-scale media analysis has drawn on the structural pluralist hypothesis (Griffin and Dunwoody 1997), which states that:

... the more diverse or pluralistic the range of power-brokers in a community, the more these sources will openly argue their positions given a certain dispute, and the more will local media report these conflicts ... Thus, news media in more pluralistic environments are viewed as routinely more impersonal and critical – more conflict-centred in their news reporting than are media in smaller, more homogeneous, interpersonal, consensus-driven communities. (Harry 2001: 419)\(^\text{75}\)

However, this theory has been challenged. Some research has found that newspapers in 'low-pluralism' – i.e. relatively homogenous – communities give considerable coverage to events likely to generate conflict (e.g. Molotch and Lester 1975; Harry 2001;

\(^{74}\) For example, Earl et al. (2004) reviewed studies of selection bias in newspapers, and found that bias appears to vary depending on the scale of the newspaper's coverage – local, regional, national or international.

\(^{75}\) See Griffin and Dunwoody (1997), Berkowitz and TerKeurst (1999) or Harry (2001) for further discussion of structural pluralism and associated theories.
Nicodemus 2004: 163). Others such as Soloski (1989) and Taylor et al. (2000), however, have found evidence supporting the hypothesis. This seems to indicate variability in reporting styles of local-scale media. The type and nature of coverage by any media source should therefore be evaluated when EDA or other analysis is undertaken.

A question rarely asked is whether the media reports initiatives for peace-making as frequently as initiatives that intensify conflicts. Wolfsfeld et al. (2002) examined media reporting of the peace treaty between Israel and Jordan and found that while positive news reports increased briefly, a return to high numbers of reports of conflict occurred relatively rapidly after the peace treaty was implemented. They suggested this was because peace-making processes were less newsworthy than acts of conflict.

Most concerns about description and selection bias can be overcome by analysing multiple sources of data on conflict events and histories, including official archives, reports from more than one media source, organizational histories and other sources (Jackman and Boyd 1979; Franzosi 1987; Olzak 1989; Barranco and Wisler 1999; Woolley 2000; Earl et al. 2004). This was the approach used in this study.

Jackman and Boyd (1979: 456), however, caution that ‘it is easy to exaggerate the benefits that accrue from collecting comparative data on political conflict from a variety of sources’. The usefulness of each source needs to be carefully evaluated before choosing to include it, and their limitations highlighted, as all sources have potential bias in terms of what they choose to report (Woolley 2000; Maney and Oliver 2001; Earl et al. 2004: 77). This explicit evaluation prevents the adoption of an assumption of temporal stability in reporting bias, an assumption rejected by many despite its widespread (often implicit) use in media analysis (Oliver and Maney 2000).

4.7 Evaluating whether conflict changed successfully

While it is possible to state when and what events and actions occurred in a conflict, evaluating whether these events and actions had a positive or negative effect on the conflict requires imposition of a value judgment. The goals of this study required this type of evaluation – and therefore it is necessary to make explicit how such judgments were made.
Different conflict responses are recommended because they are believed to be, in some way, successful. However, the question of what constitutes 'success', and how this success can be evaluated, is not easy to answer.

A range of criteria have been used to define 'positive' or 'successful' change in conflict. Criteria for evaluating success of conflict responses may include some or all of the following, each of which is discussed individually below:

- A judgment about the legitimacy of different claims made in conflict
- Evaluating the outcomes of a conflict;
- Evaluating the process used to respond to conflict;
- Evaluating impacts of the conflict response used on relationships between parties in the conflict;
- Evaluating whether the conflict response helped transform underlying issues;
- Longevity of success;
- The goals set for a particular conflict response; and/or
- Perceptions of those involved.

Multiple criteria are often used. For example, Susskind and Ozawa (1983) evaluated the success of conflict responses using criteria including the acceptability of the process/outcomes to all parties; perceptions of fairness by the broader community; maximisation of gains to all parties; recognition of past precedents; cost of reaching results; and change in relationship between parties. Bingham (1986: 69), meanwhile, included the following criteria:

Were the parties able to agree ... How stable was the agreement? How long did it take? How much did it cost in dollars and in staff time? ... How well did the agreement satisfy the interests of the parties in dispute? Did the agreement maximise joint gains? How equitable were both the process and the outcome? Did the process leave the parties better able to resolve future disagreements with each other?
4.7.1 Legitimacy of different perspectives

If a conflict is conceptualised as a dispute in which one party has legitimate and the others illegitimate claims, evaluating success is simple – if the party with legitimate claims has won, there has been a successful conflict outcome. This requires making value judgments about legitimacy of claims (Bernard 1983).

If, however, a conflict is interpreted as a dispute between parties with differing but equally legitimate perspectives, evaluating success becomes considerably more difficult. This study was based on the perspective that all parties in afforestation conflicts have a legitimate perspective. It is therefore not appropriate to evaluate success of conflict responses based on particular parties winning or losing - other criteria must be used.

4.7.2 Outcome-based evaluation

Evaluation of success can be based on a range of factors related to the outcome of a conflict response process. These might include (Samuelson and Messick 1995; Moore 1996):

- Whether an outcome was reached and/or implemented;
- The efficiency of the outcome in terms of distributing resources or power to different parties;
- The fairness of the outcome in terms of its implications for different parties; and
- Whether groups feel ownership and responsibility for the outcomes.

Many evaluations of success have focussed on whether a conflict response led to conflicting parties reaching and/or successfully implementing agreement (Bingham 1986; Fisher 1995).

Bingham (1986), reviewing 132 cases of environmental mediation processes which aimed to achieve agreement between conflicting parties, found that 78% reached an agreement. However, fewer of the agreements were subsequently implemented successfully, with levels of implementation varying in different types of disputes. Buckle and Thomas-Buckle (1986), cited in Dukes (1996), examined 81 proposed
mediations, and found only three of these resulted in stable agreements, with the majority of groups rejecting the idea of mediation outright before entering a mediation process.

There are many concerns about evaluating success solely on whether agreement was reached. If reaching agreement was not the goal of entering a conflict response process, it is not a suitable measure of success (Dotson 1993 in Dukes 1996). It is also possible that parties may reach an agreement that is not equitable or fair to all. The length of time over which agreements should be monitored before considering them ‘successful’ is another issue (Gwartney et al. 2002).76

A range of criteria have been suggested for evaluating agreements, most commonly aiming to determine whether the agreement is equitable (Burton and Dukes 1990). Bartos and Wehr (2002: 159) argue that a ‘best possible’ agreement should be judged by whether it is ‘acceptable to both adversaries and gives them equal measures of (dis)satisfaction’.

4.7.3 Process-based evaluation

Evaluation of success may be based on the success of the process used to respond to conflict. This may include evaluating how efficient, fair or just the process was.

The efficiency of a process may be measured by examining the costs, time and/or risk involved (Samuelson and Messick 1995). This assumes that more cost-effective or time-efficient processes are more successful, or ‘better’ than others.

Pruitt et al. (1993) hypothesised that if parties to a conflict believed the procedures used to address that conflict were fair, the process had a higher likelihood of long-term success than if participants believed otherwise. They examined a number of mediation processes involving money, property and behaviour. They found a significant

76 Evaluation of success may change substantially depending on the time frame examined (Thorson 1989). Short-term and long-term success of conflict responses are not necessarily related (Pruitt et al. 1993). Some measures of success may require long-term monitoring – for example, if success is defined as improvement in some environmental factor such as land degradation, or a social factor such as whether underlying causes of conflict have been transformed, it may take considerable time to evaluate success (Burton and Dukes 1990).
relationship between perceptions of fairness of the processes used and long-term success of the mediations examined.

Lauber and Knuth (1999) used a social psychological approach to examine perceptions of procedural fairness in citizen participation processes over moose management in New York State. They found that participants identified four key aspects to evaluating ‘fairness’ of the process: the receptivity of the government to citizen input; the influence citizens had over decisions made about moose management; the quality of reasoning and knowledge used by government in making management decisions; and the level of improvement in relationships resulting from the process.

4.7.4 Relationship-based evaluation

Success may be evaluated based on whether relationships between parties in a conflict improved as a result of implementation of a conflict response (Bingham 1986; Moore 1996; Lauber and Knuth 1999). This is sometimes measured by examining the extent and nature of communication between groups; it may variously be considered part of the process or outcomes of a conflict response.

4.7.5 Transformation-based evaluation

Burton and Dukes (1990) argue that assessing the success of a transformation or ‘provention’ approach must be based on the extent to which it has eliminated the underlying conditions or social structures that produced the conflict, as well as the extent to which the process contributes to improving ‘societal quality of life now and in the future.’ However, they offer little direction as to how this evaluation should be undertaken.

4.7.6 Goal-based evaluation

Another approach is to evaluate outcomes of a conflict response based on the goals of the parties when they entered the particular process being studied. This evaluation is specific to the individual conflict, with goals varying between conflicts (Bingham 1986; Burton and Dukes 1990).

77 The fairness of different processes was measured based on whether different parties had equal opportunity to state their views and be heard during the process used.
4.7.7 Challenges of evaluating success

There are a range of challenges to evaluating success based on any of the criteria discussed above.

Firstly, there is the problem of causation. Is it possible to attribute a successful outcome to the specific conflict response used? Would the same outcome have been achieved under other circumstances (Aiken and Leigh 1986)?

A second difficulty is relating success to the complexity of the conflict. Some conflicts are relatively ‘simple’ – they involve few parties, or turn out to be based on misunderstandings. Others are more complex and difficult to address. Vasquez (1995: 216) argues that it is extremely difficult to address sets of separate embedded issues that have been linked into a single overarching conflict, and that embedded conflicts ‘usually must be de-coupled’ before they can be responded to successfully. This indicates a need to incorporate assessment of the complexity of a conflict into evaluation of the success of responses to that conflict.

Thirdly, there is the problem of framing. Different parties in a conflict may perceive the outcomes of a conflict quite differently, and an external observer may have yet another different perspective (Bingham 1986; Gwartney et al. 2002). Should evaluation of success be based on criteria and measurements undertaken by an observer, or on the perceptions of parties to the conflict? Evaluation based on participants’ perceptions is arguably the only measure of success that matters, as these perceptions are what will determine the future path of a conflict (Wondolleck and Yaffee 2000).

However, Tyler (1988), cited in Burton and Dukes (1990), believes that focusing only on disputant’s perspectives risks ignoring larger societal problems that ultimately caused the particular dispute being examined. Burton and Dukes (1990) similarly raise concerns that assessment based only on perceptions of those directly involved in conflict might not be sufficient to determine whether ‘fundamental conflicts of value’ have been successfully addressed.

However, perhaps the most fundamental challenge is that almost all the measures above require some kind of normative interpretation of the ‘goodness’ or ‘badness’ of
particular types of change in conflict. Most of the literature fails to explicitly discuss this, and assumptions about what constitutes successful change must be inferred from the indicators used to measure change.

Many attempt to avoid imposing value judgments by using empirical or quasi-empirical measures of success such as whether groups involved in conflict reach and/or implement agreements. This type of measure appears value-free, as it makes no overt claim about whether particular groups are ‘right’ or ‘wrong’. In fact, it is based on the implicit value judgments – that reaching agreement is necessarily beneficial. In reality, reaching agreement can have negative consequences for some groups, e.g. where it involves loss of rights or assets. While reaching agreement indicates conflict has changed, this change must be explored to identify if it is positive or negative, and for who – something that requires value judgment. Additionally, focussing on whether an agreement was reached is appropriate only for conflicts involving a specific dispute over a single or limited action, such as the siting of a waste disposal area. It has less application to conflicts involving ongoing concerns over practices which occur on a regular basis.

A functionalist understanding of conflict directs evaluation of success to examination of the processes by which conflict is expressed rather than the present or absence of disagreement. A more radical conflict perspective would direct attention to transformation-based evaluation. More interpretivist approaches would emphasise that the participant’s, rather than the researcher’s, perspective should be used to evaluate success.

Stern and Druckman (2000) suggest that multiple criteria should be used for evaluating different elements of success. This is the approach used here, as it avoids the tendency to explain the success or otherwise of change in conflict by examining only one aspect of the conflict.

The criteria used in this study to evaluate whether conflict changed ‘successfully’ are detailed in Table 4.1. Five different criteria are used, providing multiple dimensions along which successful change could be defined. In this way a change could be evaluated as successful in some respects and unsuccessful in others. Wherever possible, the perspectives of participants in conflict were used to evaluate success.
<table>
<thead>
<tr>
<th>Criteria type</th>
<th>Description of criteria</th>
<th>Measure(s) used in this study</th>
</tr>
</thead>
<tbody>
<tr>
<td>Outcome based</td>
<td>This measure asks whether the overall level of disagreement fell over time, via groups reaching an agreement or implementing particular types of change. It assumes that lower levels of disagreement equate to successful change in a conflict.</td>
<td>• Level of media reporting of conflict over time (although it must be recognized that a rise or fall in reporting might reflect either a change in ‘level’ of disagreement or a change in the methods by which disagreement was expressed).</td>
</tr>
<tr>
<td>Process based</td>
<td>This measure asks whether processes by which conflict was expressed and acted on changed positively over time. Success is often measured by the level of opportunity for participation in the processes related to expressing and addressing conflict.</td>
<td>• Whether any institutionalized formal or informal process existed for groups to express concerns about afforestation and have them acted on; • How the number and type of conflict processes changed over time; and • The extent of opportunity for participation in different processes.</td>
</tr>
<tr>
<td>Relationship based</td>
<td>This measure asks whether the relationships between participants in conflict improved, with improvement considered a sign of successful conflict change.</td>
<td>• Participant’s and observer’s perceptions of relations between parties in the conflicts; and • Changes in the form and content of expression of conflict indicating a change in relations.</td>
</tr>
<tr>
<td>Transformation based</td>
<td>This measure asks whether underlying social structures producing conflict have been transformed. This measure assumes it is possible to know which underlying social structures produce conflict and how they produce it.</td>
<td>• Identification of underlying structures likely to be producing or influencing conflict; and • Identification of whether change in conflict was associated with change in these underlying structures.</td>
</tr>
<tr>
<td>Goal based</td>
<td>This measure asks ‘were the goals of participants in the conflict met?’ Success is measured by the extent to which goals were achieved. The measure has a tendency to assume that goals are fixed, although evaluation can include whether participant’s goals changed over time.</td>
<td>• Identifying the goals of different participants (some of which might be related to the outcome, process, relationship or transformation based measures above) • Identifying how those goals changed over time; and • Identifying, where goals had not shifted, if goals had been met.</td>
</tr>
</tbody>
</table>
4.8 Data sources, collection and analysis

The first part of this chapter set out the methodological concepts underpinning data collection and analysis. The specific data sources, collection methods and processes used to develop the narrative, media and discourse analysis are described in this section.

Both primary and secondary data were used in this study, following a shift away from use of secondary data alone in CHA to combinations of primary and secondary data (Amenta 2003; Skocpol 2003). Three types of data were used: interview data from participants and observers of afforestation conflict; media reports on afforestation; and other documentary sources.

4.8.1 Interview data

Interviews were used to collect data on both specific afforestation conflicts and on the institutional and social settings that may have influenced conflicts.

4.8.1.1 Identification and selection of interviewees

Potential interview respondents were initially identified from a review of literature discussing afforestation conflict in the two case study regions. This review was used to identify the individuals and groups involved in conflict, as well as those with knowledge of afforestation, land use change, and social change in each case study region.

Once individuals and groups had been identified, they were contacted to request an interview. These requests were almost always successful, with only one person out of 48 contacted refusing to be interviewed for the study.

An initial round of interviews was conducted in both case studies in 2000 (Western Australia) and 2001 (Ireland). During this round, interviewees were asked to identify other people who should be interviewed, and as many of these as possible were contacted and interviewed.

This was followed by analysis of interviews, newspaper data and other secondary data, described further below, to identify early results and gaps in the data.

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78 Where an individual had not been identified but a particular group was known to have played a key role in conflict, that group was contacted and asked to recommended specific individuals to interview.
Further interviews were then conducted in both case studies at various times, with individuals identified as having particular knowledge or perspectives that could fill gaps identified in the initial analysis, or more generally broaden examination of particular conflicts. Those who had already been interviewed were re-contacted by email and phone with follow-up questions arising from the initial data analysis, and to request comment on early results of the project.

This snowball sampling approach – in which each interview respondent was asked to identify other useful interviewees, together with ongoing identification of potential interviewees from the media and other documentary sources accessed - was followed until no new information was emerging from interviews. At this point, no further individuals were interviewed.

Table 4.2 provides key details of the individuals interviewed in the two case studies, grouped by the conflict discourse they tended to be a part of or, if they were observers, their role in afforestation or in the region.

4.8.1.2 Ethics and confidentiality

Permission was obtained from the Australian National University’s Human Research Ethics Committee to conduct interviews for the study.

Interviewees were guaranteed complete confidentiality. This ensured that interviewees could speak freely in interviews, and that this study did not inflame ongoing conflicts. As a result, the names of specific groups such as plantation companies or NGOs could not be used when reporting results, as this would allow identification of many individuals (hence Table 4.2 does not include names of specific organisations).

Potential interviewees were initially contacted by email or phone. I explained the nature and purpose of the study, and how I had accessed their contact details. Information sheets on the study, its purpose, and what the interview process would entail were then sent to interviewees via email or post (provided in Appendix 3). After reading the material sent, they were asked if they were willing to be interviewed. In some cases where further interviewees were recommended by people initially interviewed, this information on the study was handed to them at the start of meeting them for a potential
interview. In all cases, the interviewee was asked to read the information in full before being asked if they were willing to be interviewed.

Table 4-2: Individuals interviewed for the study

<table>
<thead>
<tr>
<th>Type of group</th>
<th>Groups/sectors from whom representatives were interviewed</th>
<th>Role/s in afforestation and/or afforestation conflict</th>
<th>Number interviewed</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>Participation in conflicts</td>
<td>Great Southern case study</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Observers of afforestation and development of conflict</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>Undertaking afforestation</td>
<td></td>
</tr>
<tr>
<td>Farming sector</td>
<td>Farmers</td>
<td>Participation in conflicts</td>
<td>4</td>
</tr>
<tr>
<td></td>
<td>Farmer representative groups</td>
<td>Observers of afforestation and development of conflict</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Representatives of farm forestry co-operatives (Ireland)</td>
<td>Undertaking afforestation</td>
<td></td>
</tr>
<tr>
<td>Rural community other than farmers</td>
<td>Members of protest groups</td>
<td>Participation in conflicts</td>
<td>5</td>
</tr>
<tr>
<td></td>
<td>formed as part of afforestation conflict</td>
<td>Observers of afforestation and development of conflict</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Shop and business owners</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Landholders other than farmers eg investors in afforestation</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Plantation sector</td>
<td>Government forestry agencies (undertaking afforestation)</td>
<td>History of afforestation</td>
<td>6</td>
</tr>
<tr>
<td></td>
<td>Private afforestation companies</td>
<td>Undertaking afforestation and managing plantations</td>
<td></td>
</tr>
<tr>
<td>Local government</td>
<td>Local government councillors (past or present)</td>
<td>Giving consent to afforestation</td>
<td>4</td>
</tr>
<tr>
<td></td>
<td>Local government planners/other employees</td>
<td>Participants in conflict</td>
<td></td>
</tr>
<tr>
<td>State government</td>
<td>Regulatory authorities</td>
<td>Observers of conflict</td>
<td>4</td>
</tr>
<tr>
<td></td>
<td>Politicians</td>
<td>Knowledge of social, economic and land use change in the region</td>
<td></td>
</tr>
<tr>
<td>NGOs</td>
<td>Environmental groups</td>
<td>Participants in conflict</td>
<td>3</td>
</tr>
<tr>
<td></td>
<td>Groups encouraging land conservation in local areas</td>
<td>Certification/ voluntary regulation of afforestation</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Recreation groups</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Certification organisations</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Others</td>
<td>Consultants</td>
<td>Undertaking afforestation</td>
<td>2</td>
</tr>
<tr>
<td></td>
<td>Researchers</td>
<td>Researching social, economic or other aspects of afforestation</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Facilitators</td>
<td>Observing or facilitating conflict response processes</td>
<td></td>
</tr>
<tr>
<td>Total interviewed in-depth</td>
<td>Note: Some people had multiple roles, e.g. an interview might have been both a farmer and a local government councillor. As a result, the total is lower than the sum of the categories above.</td>
<td></td>
<td>24</td>
</tr>
<tr>
<td>Other not formally interviewed, but who confirmed details of events or provided answers to brief questions via email or phone</td>
<td></td>
<td></td>
<td>8</td>
</tr>
</tbody>
</table>
At the start of interviews, participants were asked to sign a consent form setting out details of how the information they provided would be used (provided in Appendix 3).

4.8.1.3 Interview topics

Different people had different types of knowledge and experience relevant to the study. As a result, the same topics were not covered in every interview. The areas to be covered were determined at the start of each interview by exploring the knowledge and experience the interviewee had of afforestation, afforestation conflict, and the case study region more broadly. Each interview was then tailored to the specific experience and knowledge of the interviewee.

Table 4.3 sets out the range of interview topics covered in different interviews in the order they were discussed, and identifies when particular topics were included in interviews.
### Table 4-3: Interview topics

<table>
<thead>
<tr>
<th>Interview stage/ Topic area</th>
<th>Key areas of exploration</th>
<th>Typical question/ phrasing used</th>
<th>Interview respondents who discussed this topic</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Start of interview</strong></td>
<td>Afforestation-related experience Knowledge of/connections to case study region</td>
<td>Could you tell me about your involvement with afforestation? What ways have you been involved or come into contact with afforestation over the years? How long have you lived/worked in [the Great Southern/County Leitrim] OR While you’re not based in the region, have you had any experience directly related to [the Great Southern/County Leitrim]</td>
<td>All</td>
</tr>
<tr>
<td><strong>Direct or observed experiences of conflicts</strong></td>
<td>Identifying conflicts</td>
<td>What types of positive and negative perceptions do you have about afforestation? What types of positive and negative perceptions do other people or groups have of afforestation that you are aware of? What groups or people have expressed particular perceptions [asked for each perception identified by respondent]</td>
<td>Those with experience of afforestation (direct or observed)</td>
</tr>
<tr>
<td><strong>Exploring conflict processes</strong></td>
<td></td>
<td>What types of actions have been taken over conflict? [asked in relation to specific issues identified by respondent] Exploration questions included: Who was involved in [particular action]? When did [particular actions/events] happen? Why did [individual/group] choose to [undertake a particular approach/action]?</td>
<td>Questions asked if respondents identified specific conflicts/ concerns/ issues</td>
</tr>
<tr>
<td><strong>Evaluating conflict outcomes</strong></td>
<td></td>
<td>The following questions were asked about each issue/concern identified by the respondent: Have concerns grown stronger or less strong over time? If a change in level of concern was identified: Why do you think that change happened? If no change was identified: Why do you think there has been no change? Why didn’t [a particular action discussed previously] change the level of concern?</td>
<td></td>
</tr>
<tr>
<td><strong>Direct or observed knowledge of afforestation context</strong></td>
<td>History of afforestation</td>
<td>Questions asked aimed to identify both when and what forms of afforestation occurred, and why afforestation occurred in particular ways. Extent of questions depended on length/breadth of experience of interviewee</td>
<td>Plantation sector or government employees with history of involvement in the plantation sector</td>
</tr>
<tr>
<td></td>
<td>Key changes in how afforestation has occurred over time, including institutional settings</td>
<td>What changes have happened in how afforestation [plantation establishment] occurs? Have any changes in the [species/type of land planted/groups undertaking planting/ rule sets about how afforestation can happen/ ownership of plantations] happened? For any changes identified: When/why did this change happen?</td>
<td></td>
</tr>
<tr>
<td>Interview stage/Topic area</td>
<td>Key areas of exploration</td>
<td>Typical question/ phrasing used</td>
<td>Interview respondents who discussed this topic</td>
</tr>
<tr>
<td>---------------------------</td>
<td>--------------------------</td>
<td>---------------------------------</td>
<td>-----------------------------------------------</td>
</tr>
<tr>
<td>Direct or observed knowledge of case study region</td>
<td>History of the region</td>
<td>Questions asked aimed to identify history of the region and types of factors that may have had an impact on afforestation and how afforestation was perceived. Extent of questions depended on length/breadth of experience of interviewee.</td>
<td>People who had lived in the region or had direct knowledge of it</td>
</tr>
<tr>
<td>Key changes in the region over time</td>
<td>What are some of the major changes you have seen happen in [the case study region] over time? What types of changes have happened in the rural areas? What types of changes have happened in the towns? Why did these changes happen?</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
4.8.1.4 Recording and transcription of interviews

Interviews were taped in all cases except a small number where the respondent requested taping not occur. Extensive notes were taken during both taped and un-taped interviews. Interviews lasted anywhere from half an hour to three hours, with the time dictated by the person being interviewed.

Tapes were transcribed, although not always word for word. If a respondent was discussing an issue unrelated to afforestation or the case study region, that section of the tape was not transcribed. Similarly, if describing particular events such as the timing of a meeting, or listing the groups involved in a process, transcription was not always word for word. However, when key perceptions and issues were discussed, the transcription was exact, to ensure the phrasing used was captured accurately.

Extensive notes were taken of follow-up questions and conversations occurring via email or phone after the initial interview.

4.8.2 Media sources

In each case study, the coverage of afforestation-related issues by different media sources was assessed via examination of a sample of reports from a range of media sources (after Franzosi 1987: 11). The accessibility of each media source was also assessed, as well as the potential for bias in reporting of afforestation-related issues. Table 4.4 summarises the results of this analysis.

The most useful sources for tracking incidence of conflict in the two case study regions were the local newspapers – the Albany Advertiser and the Leitrim Observer. These were the only sources reporting regularly on afforestation concerns in each region.
<table>
<thead>
<tr>
<th>Title</th>
<th>Description</th>
<th>Coverage of afforestation related issues</th>
<th>Accessibility</th>
</tr>
</thead>
<tbody>
<tr>
<td>The Leitrim Observer</td>
<td>Weekly newspaper covering County Leitrim. Current circulation 9500.</td>
<td>The paper commonly covered local afforestation issues and events. It had less coverage of afforestation issues occurring at larger scales, although changes to national and European Union (EU) regulations affecting afforestation were often reported on as well as more localised events.</td>
<td>Hard copy and microfiche available from depository libraries in Britain and Ireland back to late 1960s. Poor scanning quality due to typesetting and age. Some articles online from late 1990s but not archived consistently.</td>
</tr>
<tr>
<td>The Albany Advertiser</td>
<td>Biweekly (Tues and Thur) newspaper covering Great Southern region, focuses on city of Albany. Current circulation of 8700 throughout the Great Southern region. The Great Southern Weekender, published on Saturdays, covers the same region.</td>
<td>The paper commonly covered local afforestation issues and events, but had less coverage of afforestation issues at larger scales. Few changes to regulations at State or Federal level were reported, except if they had a direct bearing on a specific dispute.</td>
<td>Hard copy available from depository libraries in Australia for all issues. Low feasibility for scanning photocopies to convert to electronic text due to typesetting. Some articles available online from late 1990s but not archived consistently.</td>
</tr>
<tr>
<td>Countryman</td>
<td>Weekly paper covering rural issues in Western Australia. Current circulation of 9600 throughout WA.</td>
<td>Some coverage of afforestation, but sporadic and not covering a large number of local issues.</td>
<td>Hard copy available from depository libraries in Australia for all issues.</td>
</tr>
<tr>
<td>The West Australian</td>
<td>WA daily newspaper covering general news and events. Current circulation of 200,000 (weekday) and 380 000 (Sat) throughout WA.</td>
<td>Infrequent articles on afforestation, most focussing on investment-related topics, with sporadic reporting of other issues not focussed on particular regions.</td>
<td>Hard copy and microfiche available from depository libraries in Australia for all issues. Online electronic databases available from 1990s for fee.</td>
</tr>
<tr>
<td>The Irish Times</td>
<td>National daily newspaper for the Republic of Ireland. Current circulation of 114,000 throughout Ireland.</td>
<td>Reported on afforestation issues relatively regularly, focussing on some local reports of issues but particularly on national and EU level changes affecting afforestation.</td>
<td>Hard copy available from depository libraries in Ireland, and electronic text from 1990s via Lexis-Nexis database.</td>
</tr>
<tr>
<td>ABC Country Hour</td>
<td>Daily radio program focussing on rural issues in each Australian State, with story summaries published online.</td>
<td>Reporting of some afforestation related topics, including some conflict. However, the summary reports online too brief to provide useful source of data, and did not consistently report local issues in particular regions.</td>
<td>Summary reports archived online.</td>
</tr>
</tbody>
</table>
Every available issue of the two key media sources was examined for as long a time period as was feasible. In the Great Southern, this included all issues of the *Advertiser* starting from 1986, two years prior to the first major afforestation in the region, through to 2002. In Leitrim, issues of the *Observer* were available from 1968 onwards, prior to the initial major conflicts over afforestation but starting well after afforestation was undertaken on a large scale in the region. Data on earlier years of afforestation were obtained from other sources, particularly Dail Hansard transcripts.

All available issues of newspapers were searched rather than only a sample of issues, to avoid potential bias resulting from a purposive sampling scheme (Earl *et al.* 2004). While sampling approaches have been argued to be appropriate when studying daily newspapers (e.g. Rucht and Niedhardt 1999), the *Advertiser* and *Observer* were bi-weekly and weekly publications respectively, and key conflict events could easily have been missed if a sampling rather than census approach was used.

As neither paper was available as an electronic resource, microfiche and hard copies of the papers held in the National Library of Australia (*Albany Advertiser*), the British National Newspaper Library (*Leitrim Observer* 1968 to 1995) and the National Library of Ireland (*Leitrim Observer* 1996 to 2000) were manually searched. In each issue, all headlines were read and any article with a headline potentially referring to afforestation or related issues was read in full, as were advertisements and relevant notices. Relevant articles were either photocopied or, if the article was short (one to two paragraphs), copied by hand.

Franzosi (1987: 12) suggested clear criteria be developed on ‘whether or not an article qualifies for recording’. Simple criteria were used to decide which articles to include in the analysis: if the article referred to afforestation, plantation management, harvesting or processing, or to non-commercial tree planting other than symbolic planting of trees in urban areas, it was included. This ensured all relevant reports on afforestation were included in the study.

Table 4.5 summarises the numbers of relevant articles and other items accessed from the two newspapers.

Table 4-5: Issues searched and articles found in key media sources

<table>
<thead>
<tr>
<th>Time period examined</th>
<th>Albany Advertiser</th>
<th>Leitrim Observer</th>
</tr>
</thead>
<tbody>
<tr>
<td>Number of missing issues in archives searched</td>
<td>Approx. 25</td>
<td>Approx. 70</td>
</tr>
<tr>
<td>Total number of issues examined</td>
<td>Approx. 1700</td>
<td>Approx. 1600</td>
</tr>
<tr>
<td>Number of articles found on afforestation</td>
<td>471</td>
<td>582</td>
</tr>
<tr>
<td>Afforestation articles not copied in full</td>
<td>As a very high number of articles discussed non-commercial tree planting, it was not possible to copy or record all of them, and so a note was made of their occurrence and a sample of one in five was copied in full.</td>
<td>Not all advertisements for different tree planting companies or consultants were copied but all occurrences of these advertisements were documented</td>
</tr>
</tbody>
</table>

As well as ensuring the method of selecting articles did not bias the study by missing key conflict events, it was important to identify potential sources of bias in the reporting of afforestation-related issues in the *Advertiser* and *Observer*. In this study all sources of data were considered to have different and important perspectives on conflict – another way of saying that every type of data is ‘biased’ in some way, and analysing this bias is the key to understanding the scope and limitations of each data source. By accessing multiple types of data, the gaps and perspectives in each could be better assessed and addressed.

To identify potential sources of bias in the media sources analysed, the consistency in newspaper staff (reporters and editors) was examined over time for both the *Advertiser* and *Observer*, and gaps in reporting of afforestation-related issues were identified.

Multiple reporters wrote about afforestation issues in each of the *Observer* and *Advertiser* over time. However no major differences were identified for either newspaper in the way different reporters wrote about afforestation issues, indicating strong consistency in afforestation coverage over time for both newspapers. Over the long time period studied, there was change in the editors of both papers. However, again, no major shifts in the way afforestation was reported were identified (shifts could for example have occurred in the extent to which positive or negative views of afforestation were reported). This suggested that changes in reporting and editing staff
did not lead to significant changes in the reporting of afforestation issues in either newspaper.

Gaps in reporting of afforestation related events could result from other news items being considered more newsworthy than afforestation issues, and hence being given reporting space in preference to afforestation related issues, or as a result of some key afforestation events occurring ‘out of the public eye’. This was identified by comparing newspaper coverage to information from other data sources, and by identifying major news issues that were likely to have been given reporting priority over afforestation issues. For the former, several events were found that were not reported in newspaper articles but which were discussed by interviewees or in government or other documents – generally those which involved little overt conflict and hence were less ‘newsworthy’, and/or those involving small numbers of individuals. These gaps in newspaper coverage are detailed in the results chapters when discussing individual conflicts. Little to no evidence was found for bias related to other news taking priority over reporting afforestation issues. In fact, afforestation conflict was a high priority topic for reporting for both newspapers, often being reported as front page news in both. On those occasions where other news issues were also considered highly important, afforestation issues were sometimes given less space, or less prominent space, but were generally still reported despite other news also having high priority.

The Advertiser and Observer were therefore both highly consistent in their reporting of afforestation issues, with the exception that some events in particular conflicts attracted little media attention - particularly events which did not involve high levels of disagreement, or events involving negotiations between individuals rather than groups. The use of other data sources ensured that these gaps were identified as far as possible.

Coding of media articles is detailed below.

4.8.3 Other documentary sources

A range of other documentary sources discussing afforestation were accessible in both case study regions. Throughout the study, these were obtained wherever possible. They included:
• Government reports;
• Hansard records of government debates;
• Previous research on social and economic aspects of afforestation in the case study regions;
• Media reports from sources other than the Albany Advertiser and Leitrim Observer; and
• Newsletters, letter and reports produced by interest groups and by the plantation sector.

These documentary sources, like all other sources of data used in this study, provided both a record of events and particular interpretations of them.

Documents were searched for using a range of processes, including:

• Asking interview respondents to identify relevant documents. Often respondents also provided copies of relevant documents;
• Searches in local, State and academic libraries;
• Searches in the private libraries of several organisations including State agencies and ENGOs; and
• Online searches.

The extent of discussion of afforestation in particular documentary sources varied across the two regions. For example, afforestation has been debated extensively in the Irish parliament. As a result, a large number of Hansard records of Dail debates, often involving members representing County Leitrim, were used in the study. In Western Australia, however, much less debate occurred in the State Parliament about afforestation and Hansard reports were of more limited usefulness.

Therefore the documentary sources used varied across the two regions. A consistent coding approach, combined with analysis of gaps in the data gathered, was used to ensure the data used was compared as consistently and appropriately as possible across the case studies.
4.8.4 Data analysis techniques

Data was analysed by thematically coding all data sources, comparing the different data to clearly identify overlap and variance in reports of the same events and interpretation of their outcomes, and finally by identifying gaps in the data.

4.8.4.1 Thematic coding

The same broad process was used for coding all data gathered for the study, including media reports, interviews and secondary data. Using a similar coding system across all sources allowed for a dialogue identifying the extent of coverage and perspectives in different sources. Additional coding of the media articles from the two key local newspapers was also undertaken, with counts of topics and articles used to track levels of publicly reported conflict over time.

For each case study, a set of key coding themes were developed from initial reading of a sub-set of media articles, interviews and other data. These were then tested on a set of different data to see how comprehensive they were and, after revision, used to code different data sources (following the approach used by many for electronic coding, e.g. Bengston and Fan 1998). The coding themes used were left open-ended throughout the process of data analysis, with actors/topics/events added and coding categories refined as new issues emerged in the data. This flexible approach was needed as a wide variety of issues and actions occurred over time, not all of which emerged in the sample of data used to develop the initial set of codes (Koopmans and Statham 1999; Rucht and Niedhardt 1999).

Importantly, all actions taken by actors involved in afforestation conflicts were coded—not just actions that could be defined as ‘protest’. This followed Koopmans and Statham’s (1999: 11) calls for a shift from a ‘protest-centric’ analysis to examination of all interactions of actors, discussed above.

Coding categories and themes were developed for all actors, actions, issues, beliefs and events related to afforestation and afforestation conflict. Rather than following predetermined categories of conflict terms, such as those defined by Bengston and Fan (1998), each theme was initially coded separately and relationships between different
themes were subsequently identified. This made subsequent identification of distinct discourses relatively easy, as the coding methods identified organic groupings of themes and actions that formed the basis of the discourse analysis.

While specific coding themes were developed for events that differed in the two regions, a common theme was used across the two regions for similar events, even if different terminology was used to refer to the concept in each region (Koopmans 1999). For example, afforested areas were most commonly referred to as ‘forests’ in Ireland and as ‘plantations’ in Australia. The in-depth qualitative approach used to analyse the data meant there was a high degree of confidence that equivalence in concepts across case studies was being achieved, as the meaning of events was used as the basis of coding, rather than the specific terminology used to describe them.

Appendix 4 lists the coding terms used when analysing data.

Manual coding was used rather than machine coding for all data sources. While it is now common to code electronic media reports using software developed specifically for media analysis (e.g. Gerner and Schrodt 1996, 1998), this was not possible in this study. The variety of sources, and the fact that the two key media sources were only available in hard copy that was of poor quality and not suitable for scanning and converting to electronic text, made electronic coding unfeasible. Manual coding also allowed constant building of search terms and phrases as new concepts and issues appeared in the data, whereas electronic coding may have missed some key issues related to afforestation.

The use of manual coding creates potential for bias due to conscious or unconscious assumptions made by the person undertaking coding (Schrodt et al. 2001). To identify the likely extent of bias resulting from a single person undertaking the coding, I re-coded a sample of documents several months after initial coding and compared the two sets of codes, following Franzosi’s (1987) approach of using acceptance sampling to identify the likely rate of coding error. I found that all key themes had been consistently coded, but that up to 15% of lesser themes were omitted in either the first or second round of coding. In total, less than 5% of themes were omitted in either the first or the second round of coding. While there are no guides in the literature to ‘acceptable’ error
rates, this <5% level seemed reasonable given the large number of themes, and the use of multiple sources of data to examine the same events.

When analysing the media articles from the *Leitrim Observer* and the *Albany Advertiser*, specific types of coding were used in addition to the broad thematic categories described above.

Coding included whether the article reported ‘positive’ or ‘negative’ views of afforestation. This simple binary coding was used to track overall levels of reporting of different sentiments over time. This was similar to the binary coding of media reports into ‘pro-cut’ or ‘pro-save’ frames by Bendix and Liebler (1999) when studying old-growth forest conflict in the USA.

In addition, the length and placement of articles was recorded to be able to further examine the prominence of afforestation issues in media reporting, an approach used in many previous studies (e.g. Smith 2000: 322-323; Bengston and Fan 1998; Woolley 2000; Maney and Oliver 2003).

**4.8.4.2 Triangulation of data**

Triangulation of different data sources was used in two specific ways. Firstly, triangulation was used where possible to confirm the timing and prominence of particular events or actions taken in conflicts. If more than one source reported the same actions or event, it was generally given more emphasis as an influential factor in the history of a conflict, particularly if actors from different perspectives identified the same key actions or events as crucial to the outcomes of a conflict.

The second key use of triangulation was as a tool for assessing whether conflict had changed in a positive or negative way over time. The views of different participants in, and observers of, conflicts were compared to see if those with different roles agreed or disagreed about whether conflict had changed in a positive or negative way over time. If

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80 Entire media articles were coded, rather than coding only headlines or introductory paragraphs, following the finding of Schröt et al. (2001) that full-story coding records conflict events more comprehensively than coding based on a subset of the media report.

81 While some researchers transform this type of information into scales showing levels of conflict over time (e.g. Schröt et al. 2001, 2004), I used simple counts of numbers of times different themes, actions or events rather than transforming these into particular scales.
people with otherwise different perspectives agreed that conflict had changed in a particular way, this was taken as stronger evidence of change than evidence which was disputed or reported differently by different parties.

Triangulation was particularly important when analysing media reports. As discussed previously, considerable concern is often raised about the potential bias in how the media report events. In this study local media reports were used extensively to identify when and how particular events occurred and, to some extent, the perspectives of particular actors involved in conflict. However, in all cases the perspectives reported in the media were triangulated with the reports of interview respondents, and with other documentary evidence, to identify the extent to which media reports had examined only particular views of events, and the extent of coverage of key conflict events. In both case study regions, this comparison of different sources uncovered some gaps in media coverage, but also surprisingly that, while media reports often gave more space to particular groups when reporting on conflict, in almost all cases they included at least a brief description of the different views being presented about a topic of conflict. It was rare for interview respondents to identify a conflict perspective that was not also described in media reports of the conflict being discussed. In terms of identifying the existence of particular perspectives, therefore, the local media were highly useful as long as other sources were also used to identify information about conflicts. However, media reports were of limited use when examining why conflicts reduced in intensity, as it was rare for an article to be published discussing improvement in relationships between actors in conflicts. Other sources had to be relied on to identify why conflicts changed positively, while media reports were more useful for identifying when unproductive forms of conflict emerged and intensified.

4.8.4.3 Analysis of data coverage

The data available on conflicts was limited, and there were gaps in the data. For example, sometimes no information could be sourced directly from one group involved in a conflict but was sourced from all other groups involved, as well as from observers.

Part of the analysis process therefore involved assessing the coverage of conflict in available data sources and identifying the implications of any gaps in information. When
the narrative histories of each conflict are presented, gaps in the data are identified clearly, following Stern and Druckman's (2000: 45) advice that:

It makes sense for analysts, in addition to specifying the sources of their information, to speculate about the kinds of information that may be missing and the kinds of distortion the available information may contain.

4.9 Comparative analysis

The term ‘comparative analysis’ (CA) can be used to refer to analyses ranging from descriptive comparison of two cases to statistical analysis of large sets of data involving hundreds or thousands of cases. It is therefore important to discuss the type of comparative analysis used in this study, and why it was used.

The field of CA is generally divided into CA for studies involved small numbers of cases (small-N studies) and those involving many cases (large-N studies). In general, small-N studies utilise qualitative CA or more recent approaches aiming to bridge the ‘qual-quant’ divide. Large-N studies, meanwhile, use statistical analysis to compare cases. This study involved small numbers of cases, and so the CA needed to utilise qualitative or ‘bridging’ approaches.

Within the small-N field, there are a wide range of methods used for CA. Comparative methods range from J.S. Mill’s method of agreement and difference\(^{82}\) to more recent methods such as Ragin’s Boolean and, subsequently, fuzzy logic Qualitative Comparative Analysis (QCA) approaches (Ragin 1987, 2000; Mahoney 2003a).

Initially, I planned to use Ragin’s fuzzy logic approaches to analyse the cases examined in this thesis. However, this relied on having a reasonable number of cases to compare. Initially, I believed that entire cases of conflict might be comparable to each other; however, as the study progressed it became evident that the comparison needed to be of the specific characteristics of different conflicts – in effect, a variable-oriented strategy exploring for ‘themes that cut across cases/studies ... separating the features of the case

\(^{82}\) The use of concepts of ‘agreement and difference’ to infer causality has been criticised by many as overly deterministic – i.e. assuming events happen purposively rather than by chance, assuming no measurement error, and assuming causality is unitary rather than involving a conjunction of conditions that interact with each other (for discussion of these issues, see Lieberman 1991, 1994; Mahoney 2003b).
from its context’ (Mays et al. 2005a: 14-15). As I analysed individual conflicts, it became clear that many of the characteristics I wished to compare across conflicts had only occurred in two or three of the conflicts. For example, particular types of conflict response, such as calling in a third party to mediate a dispute, or taking a dispute to court, had been attempted in only two or three of the conflict studied.

In addition, the individual conflicts identified over afforestation varied so considerably that there were often few characteristics in common between them other than that the topic of conflict related to the plantation sector and its activities. For example, the conflicts ranged from disputes over siting of a plantation processing facility to conflict over the social impacts of widespread afforestation.

Because of this, there was only limited opportunity for analysis using the QCA approach (for detail of this approach, see Ragin 1989, 2000). Utilising QCA appropriately would have required seeking additional cases of afforestation conflict to add to the data already gathered, and time and available resources did not allow for this.

Because of this, the CA needed to use simpler qualitative methods. However, it was still important to structure this qualitative CA as much as possible, to ensure it was undertaken in a systematic manner. A relatively simple comparison framework was used to achieve this.

I used an approach broadly based on the Constant Comparative Analysis (CCA) developed by Glaser and Strauss (1967) as part of their grounded theory approach. CCA:

... involves taking one piece of data ... and comparing it with all others that may be similar or different in order to develop conceptualisations of the possible relations between various pieces of data. (Thorne 2000: 69)

While the comparison was variable-oriented, it was important to examine the context in which different variables occurred – in this case, the whole conflict. I did this by combining crosstabulation of specific, coded characteristics of conflicts with qualitative

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83 Comparing entire conflicts would have resulted in relatively meaningless outcomes, as it was the presence and absence of different combinations of characteristics in different conflicts that appeared to be associated with particular conflict outcomes.

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exploration of the patterns seen across different conflicts that incorporated a contextual understanding of the whole conflict (Miles and Huberman 1994; Mays et al. 2005a,b).

I used a process of crosstabulation to assist in the systematic comparison the influence of different conflict characteristics on the outcomes of conflict. Conflict characteristics and outcomes were classified into simple sets of categories. Characteristics were usually categorised into the simple exclusive binary set of ‘presence’ and ‘absence’. As detailed further in Chapter 7, for each situation in which a particular characteristic was present or absent, the ‘outcome’ of the conflict at that time was recorded in three categories: no change in conflict, negative change in conflict, and positive change in conflict.

These analyses are presented in the form of a series of crosstabulations in Chapter 7. Crosstabulations have been recommended by a number of authors in a range of social science and other fields as a useful way of providing a systematic basis to qualitative comparisons (e.g. Miles and Huberman 1994; Alasuutari 1995; Nijkamp and Vindigni 1999; Thomas et al. 2004).

When comparing cases utilising the crosstabulations, the identification of factors affecting whether conflict changed successfully was broadly based on the concept of necessary and sufficient causation, in which particular factors were considered ‘sufficient’ to have been related to an outcome if they were always present in association with that outcome, and ‘necessary’ if an opposite outcome occurred when they were not present (Mahoney 2003b). However, fuzzy definitions of sufficiency and necessity were used. If a factor or groups of factors were mostly but not always present or absent in association with a particular outcome, this was argued to indicate the likely presence of a relationship. Qualitative analysis was then used to argue for or against the existence of the relationship.

This was done as the traditional method of ‘agreement’ and ‘difference’ places unrealistic criteria on associating factors with outcomes, making the deterministic assumption that all incidences are meaningful rather than random (Mahoney 2003b). Given the gaps in data for some conflicts, and the small number of cases, an assumption that all combinations of variables had a meaningful impact on conflict was clearly unreasonable.
This is consistent with Ragin’s (2000) argument that causes may have different degrees of necessity and sufficiency, with a ‘100%’ standard being inappropriate. It also fits with a ‘pattern matching’ approach in which if a general pattern is observed, a relationship can be said to hold even if particular instances are found that deviate from the overall pattern (Mahoney 2003b: 362).

The comparisons aimed not to generate a direct causal explanation, but to achieve what Hall (2003: 388) describes as:

... a lower level of analysis where the effort is to identify recurrent microlevel processes that contribute to many [similar] outcomes ... many argue that political events are generated by causal processes that are so complex or context dependent that they cannot be explicated in general terms. Instead, analysis should concentrate on “social mechanisms” construed as basic forms of human behaviour or recurrent forms of collective action that are constitutive components of the causal chains leading to broader political outcomes.

It seemed likely that the causal processes involved in the conflicts studied were complex and context dependent to the extent that it was appropriate to focus on identification of social mechanisms showing recurrent patterns, rather than on trying to prove causal links. The relatively small number of cases examined, and the differing levels of comparability of some conflicts, also meant this was the most appropriate approach.

Conflicts were compared both within and across the two case study regions, as shown in Figure 4.1 in which the black and grey arrows indicate degrees of equivalence between conflicts, which affect comparison of conflicts. Comparison of similar topic of conflict across case studies (e.g., comparing Type 1 conflicts across the two case study regions) might involve a higher degree of equivalence than comparison of two different afforestation conflicts within the same region (e.g., comparing Type 1 and Type 3 conflict in Case Study One of Figure 4.1).
Equivalence and difference are often conceptualised as having essentially binary properties, in which two conflicts would be categorised as either equivalent or different, but not as partially equivalent and partially different. However, given the complex mixes of variables involved in the conflicts studied, it was more appropriate to think of levels or proportions of equivalence and difference between conflicts, similar to the fuzzy definitions of necessary and sufficient causation described above.

The process of comparison therefore clearly had to include analysis of the level of equivalence between case studies. Rather than attempt to generate some type of numeric equivalence scale, discussion of equivalence is incorporated in the qualitative analysis of the crosstabulations presented in Chapter 7.
4.10 Presentation of results

The following chapters analyse 14 individual conflicts occurring over afforestation – eight occurring in the Great Southern region (Chapter 5), and six in County Leitrim (Chapter 6). This is followed by comparative analysis of the 14 conflicts (Chapter 7).

The analysis of results of the study was a multi-staged process, shown in Figure 4.2.

<table>
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<th>Stages in analysis of results</th>
<th>Reporting of each stage</th>
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<td>Stage 1: Narrative history of afforestation and associated socio-economic change developed for each case study region</td>
<td>Summary of narrative history provided in Chapters 5 &amp; 6</td>
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<td>Stage 2: Individual afforestation conflicts identified in each region from the narrative histories</td>
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<td>Stage 3: History of individual conflicts documented</td>
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<td>Stage 4: Evaluation of whether conflict changed successfully over time and event history analysis undertaken for each</td>
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<td>Stage 5: Comparative analysis across conflicts</td>
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Figure 4-2: Stages in analysis of results
Initially, an in-depth narrative history of afforestation was developed for each case study region. The two narrative histories are included in Appendices 5 and 8.

Each narrative history was then used as a basis for identifying individual conflicts. The DA used to identify individual conflicts in each case study region is detailed in Appendices 6 and 9.

A conflict was defined as an issue involving a combination of topics, actors and processes that was distinct from other combinations. Individual conflicts were identified from the broader history of afforestation by identifying clusters of concerns which (a) involved distinct topics or issues, (b) occurred at a different times to other concerns and/or (c) were expressed and acted upon by a distinct group of actors.

From this analysis, a set of distinct but related conflicts was identified in each case study region, each of which could be analysed separately and then compared.

The results reported in the following three chapters focus primarily on the analysis and comparison of individual conflicts. A summary of key events in the history of afforestation in each region is given, as is a summary of the process used to identify individual afforestation conflicts. Then for each individual conflict identified in the two case study regions:

- a brief history of the conflict is given. This includes key events and a description of typical processes of interaction occurring in the conflict;
- an evaluation of whether the conflict changed ‘successfully’ over the time period studied is made; and
- an event history analysis is provided, explicitly examining the cycles of events occurring in the conflict and identifying any critical junctures which led to a change in the way the conflict was expressed and acted upon.

The different conflicts occurring within and across the two case studies are then compared to identify factors likely to have influenced the outcomes observed in different conflicts.
5 Results - Great Southern Region (WA)\textsuperscript{84}

5.1 Introduction

This chapter is presented in two parts. First, a brief contextual history of the Great Southern region is given, mostly focussing on the history of afforestation in the region. Secondly, eight afforestation conflicts occurring in the region between 1988 and 2002 are analysed. A strategic narrative of each conflict is given, focussing on events and actions relevant to conflict. This is followed by an evaluation of whether the conflict changed successfully at any point during the period studied, using the five measures of successful change given in Table 4.1. Finally, an event history analysis is presented, identifying likely causal relationships between events in the conflict.

5.2 The Great Southern region

5.2.1 Location and current socio-economic characteristics

The Great Southern region is located in the south of Western Australia (WA) (Figure 5.1). It consists of 12 local government areas (LGAs), including the City of Albany and 11 rural shires. Broadacre agriculture is the predominant land use in the region. By 2000, there were an estimated 115,445 hectares of plantations in the region, most in the LGAs of Albany, Plantagenet and Cranbrook (DLGRD and GSDC 2001). The region's economy is primarily rural, with the City of Albany the regional administrative centre and the hub for transport of agricultural produce, livestock and, more recently, woodchips from the region's plantations. Tourism has grown in the region over recent decades (DLGRD and GSDC 2001).

\textsuperscript{84} Note that the results presented in Chapter 5 and Chapter 6 contain few direct quotes from interview respondents, media reports and other documentation, due to length constraints. Refer to Appendices 5 and 8 for more extensive direct quotations supporting the analysis provided in Chapters 5 and 6.
Figure 5-1: The Great Southern region

Source: Great Southern Development Commission (used with permission)
In recent years, the population of the regions has gradually urbanised, with inland and agriculture shires experiencing population decline while the City of Albany and the two closest shires to Albany – Denmark and Plantagenet Shires - have grown. Most population growth in Denmark and Plantagenet Shires has been in their largest towns, Denmark and Mt Barker respectively (DLGRD and GSDC 2001). By 2000, the Great Southern had an estimated population of 52,128 people. The majority (29, 873) lived in the City of Albany.

5.2.2 Early history

The region has a long history of inhabitation by various groups of the Bibelmen Aboriginals, who occupied coastal lands from Perth through to Bremer Bay that included the Great Southern region.

Europeans first came to the area when Captain George Vancouver sailed into the natural harbour that is now surrounded by the town of Albany. In 1826, the town of Albany (initially named Frederickstown) was founded to provide a base for maritime transport, with the harbour used as a coal loading station and mail depot (Department of Planning and Urban Development 1991).

Within a few decades agriculture formed a key part of the economy of the region as settlers shifted into WA’s south-west and developed new farming methods to enable use of the unfamiliar soils of the region. In 1899, Albany was linked to other parts of Western Australia by rail, allowing transport of agricultural produce to market either via Albany Port or by transport to other parts of WA.

By 1900, farms were being established towards what is now Katanning (170 kilometres north of Albany) and in other parts of the region (CBH n.d.) These farms were generally owned by individual settlers, who were provided land under a system of ‘conditional purchase’ in which land payments were deferred, and settlers were required to clear land to retain it (Field 1963). They were generally established within travelling distance of the railway line, with large parts of the region remaining uncleared of natural vegetation (Department of Planning and Urban Development 1991).
Growth in agriculture and fishing activities provided the major source of population growth in the region over subsequent decades:

Throughout the 1900s the population of [the lower Great Southern] increased gradually with agricultural and fish products providing the main impetus for growth in the region. Whale oil and whale bone extracted in Albany were two of the State’s earliest export products, and regulated whaling continued in the region until 1978. (Department of Planning and Urban Development 1991:63)

After World War I, the Soldier Settlement Scheme (SSS) was implemented under which returned soldiers were provided loans to purchase land and farm it. The loans were provided on condition that a minimum area of land was cleared annually. However, many of the SSS farms were abandoned within a few years, as the land proved difficult to farm productively and returned soldiers often lacked the knowledge required to successfully utilise the land.

5.2.3 Expansion of agriculture post World War II

Much of the land currently used for agriculture in the region was only cleared of natural vegetation after World War II, as part of Soldier Settlement Schemes similar to those implemented after World War I. The SSS after World War II coincided with breakthroughs in technology and farming techniques that enabled many areas in WA to be farmed where farming had previously failed (Field 1963). SSS projects implemented in the Great Southern after World War II included clearing of land around the town of Many Peaks east of Albany, Rocky Gully in the west of Plantagenet Shire, South Stirling in the east of Plantagenet Shire and the entire area of Jerramungup Shire, to name a few (Barrett 1965).

The clearing of land for agriculture continued up to the 1970s, after which clearing slowed, although some clearing continued through the 1980s. The reasons land clearing slowed and then halted were, firstly, concerns about the environmental impacts of large-scale removal of natural vegetation, and more specifically, concerns that vegetation
removal was contributing to occurrence of widespread dryland salinity that was rendering land unusable\textsuperscript{85} (Department of Planning and Urban Development 1991).

At the same time, considerable changes were occurring in the agricultural sector. Increasing mechanisation of many tasks, and overall increased efficiency of production with the introduction of new technologies, meant that less labour was needed to produce the same volume of produce. Meanwhile falling commodity prices and rising input prices meant farmers needed to ‘get big or get out’, and the government removed market protections such as floor prices. These pressures led to many farmers leaving agriculture, while those remaining commonly purchased additional properties to expand their agricultural enterprise (Department of Planning and Urban Development 1991).

5.2.4 Afforestation begins: 1980s and early 1990s\textsuperscript{86}

Commercial afforestation began in the Great Southern in the late 1980s, and expanded rapidly through the 1990s, at the same time that major change in the agricultural sector led to numbers of farmers declining in the region after three decades of growth in the rural population. Figure 5.2 shows the annual rate of afforestation in the Great Southern from the time of first afforestation, as well as the number of articles published in the Albany Advertiser that reported positive and negative views on the expanding plantation estate. These positive and negative views were expressed over a range of topics related to afforestation, and it is important to understand the history of afforestation in the region to better identify how and why particular conflicts arose at different times.

\textsuperscript{85} Dryland salinity is widespread in WA, and occurs when vegetation clearance results in rising watertables that transport soluble salts previously located in sub-soil areas to the soil surface. Clarke \textit{et al.} (2002: 93) estimated that in south-western Australia, where the Great Southern is located, ‘about a third of cleared land will become saline at the new hydrological equilibrium associated with current agricultural practices’.

\textsuperscript{86} This brief history is a summary drawn from the longer narrative history of afforestation in the region provided in Appendix 5.
Prior to the late 1980s, very few plantations had been established in the Great Southern. In 1987, a new afforestation scheme was introduced to the region by the Department of Conservation and Land Management (CALM), the State government department in charge of managing publicly owned forests and plantations. The government, wanting to expand plantations without either clearing native forest or purchasing private land, offered to establish plantations under sharefarming agreements with farmers. Under these agreements, farmers provided land for plantation establishment and in return received a share of the returns at harvest of the tree crop.

While generally welcomed, with the environmental benefits of plantations widely promoted along with the farming benefits of diversifying into tree cropping, some conflict occurred over afforestation even at this early stage of development. Environmentalists raised concerns that the plantations were being established using methods that would cause erosion and chemical run-off into nearby waterways. Some

87 The neighbouring South West region, however, had a longer history of plantation development, with both publicly established softwood plantations and, from the mid 1980s, blue gum plantations established by Bunnings Tree Farms (now WA Plantation Resources).
farmers who had entered into joint ventures found their farm management was impeded by the plantations, and wanted afforestation to be designed to better complement their agricultural enterprise.

Early plantings were of *Pinus radiata*, but by 1989 *Eucalyptus globulus* - 'blue gums' - were being established. Blue gums grow on a much shorter rotation than *P. radiata*, with harvest for woodchips possible within 10 to 12 years. In 1989, there was also a shift to leasing arrangements, under which farmers received an annual payment in return for use of their land to grow a plantation.

The successful growth of early blue gum plantations attracted a number of private companies to establish similar plantations in the region from the early 1990s. These included companies which established plantations on behalf of single investors – for example, CALM established plantations for Japanese companies - and agribusiness investment companies. The latter offer managed investment schemes (MIS), under which investors can purchase a ‘woodlot’ from a prospectus, which the MIS company establishes and manages on their behalf. The cost of establishment is tax deductible in the year the investment is made.

Private companies establishing plantations in the region included Integrated Tree Cropping (operating from the early 1990s), Australian Plantation Timber (early 1990s), Bunnings Tree Farms88 (operating from the mid 1990s), Great Southern Plantations (mid 1990s), and Timbercorp (mid 1990s), amongst others.

During the first half of the 1990s, planting rates increased slowly. Media reports of the new plantation industry in the region were predominantly positive. However, according to interview respondents, landholders neighbouring plantations sometimes expressed concerns about the practices used by plantation companies, and believed that the new plantations were creating management problems for neighbouring farmers. Additionally, many supporters of afforestation specified that they supported afforestation that was integrated into, rather than replacing, farming enterprises. This qualification indicated

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88 now WA Plantation Resources.
that the planting of ‘whole properties’, and purchase of land for afforestation, had less support.

Until the mid-1990s, most afforestation was undertaken on land leased from farmers. However from the mid-1990s plantations were increasingly established on land purchased by plantation companies. Additionally, when leasing occurred it was increasingly common for an entire farm to be leased and afforested, rather than only a proportion of a property.

As this shift occurred, and rates of afforestation increased, concerns began to be publicly expressed about what was commonly referred to as ‘whole farm planting’, as well as some related issues. These were dominated by a concern that expansion of large-scale afforestation, particularly the establishment of plantations on whole properties rather than only a small proportion of a property, would lead to rural depopulation. Rural depopulation was, in turn, believed to lead to declining availability of services in small rural localities, and loss of a sense of community. These concerns existed for some time before they were reported in the media\(^8\), but were publicly expressed primarily from the mid 1990s onwards. The concerns were expressed by a diverse range of people living in the region’s rural communities.

From the mid-1990s, afforestation rates expanded rapidly, as can be seen from Figure 5.2. Of the total plantation estate established in the region by 2001, over 80% was established between 1996 and 2000 (Schirmer et al. 2005).

From the mid-1990s, concerns were expressed about an increasing number of aspects of afforestation. These ranged from concerns about the management of fire risk and feral animal control, to concerns about the planting of large areas of single species, and about the social consequences of ‘whole farm’ or ‘fence to fence planting’. Again, concerns over fire issues were expressed by a diverse range of groups that included farmers, rural residents and local government, amongst others.

\(^8\) As described later in this chapter.
Meanwhile, the number of private companies establishing plantations was increasing, as was the area of plantations being established each year.

From the late 1990s, particularly 1998 and 1999, many of the young plantations established in the region were aerially sprayed with insecticide to control pests feeding on the eucalypt leaves. Considerable concern was expressed about this aerial spraying, and the issue became a highly publicised conflict. Protesting members of local communities lobbied for a stop to all aerial spraying, while the plantation sector argued that the spraying was undertaken under strict protocols that ensured it was safe.

In 1999, the MIS companies establishing plantations came under pressure from two major changes. The first was the announcement in November 1999 that the rules specifying when investment funds had to be spent would be changed. Instead of having 13 months in which to spend investor funds, companies now had to spend these funds in the same year they were provided to the investment manager. This resulted in a large increase in the area of plantations established in the year 2000, as many plantation companies had already been committed a large amount of funds which now had to be spent by the end of the tax year\(^{50}\) (Australian Forest Growers 2000).

The second was the Australian Tax Office (ATO) disallowing the tax deductions claimed by investors from a number of agribusiness managed investment schemes around Australia. While investors in the major plantation MIS companies of the Great Southern did not have their tax deductions disallowed, public confidence in the agribusiness MIS sector in general fell after the ATO action.

The uncertainty surrounding agribusiness investment MIS, and the changes to tax rulings, led to a sharp downturn in afforestation in 2001 and 2002 following the ‘boom’ planting year of 2000.

However, a substantial plantation estate had been established by this time, and by the late 1990s some of the earliest plantings were approaching harvest age. As members of the plantation sector began establishing infrastructure needed for harvest and processing

\(^{50}\) June 30\(^{th}\) in Australia.
of plantations, new concerns arose over the potential impacts of large numbers of trucks transporting logs and woodchips on local roads.

As the earliest plantings approached maturity, investment in processing and export facilities in the region was planned and undertaken. Albany Port constructed facilities to allow docking of ships for export of plantation woodchips from the region. The Albany Plantation Export Company (APEC) was formed to establish a woodchip mill near Albany. After public concern was raised over how woodchips would be transported from the APEC mill to the port, a railway was constructed to transport the woodchips to port by train, rather than by road through the city of Albany.

Harvesting of the first plantations began in 2001, and has been expanding in the years since. At the same time, the rate of afforestation has increased after the downturn in 2001 and 2002 (Parsons and Gavran 2005).

5.3 Identifying individual conflicts

From the brief history above, it can be clearly seen that different types of concerns have been expressed about afforestation at different times, and that afforestation conflict has included a range of topics. Effective analysis of afforestation conflict required identifying the different conflicts occurring over afforestation and analysing each individually.

As outlined in Chapter 4 and described in detail in Appendix 6, the first step in identifying individual conflicts was development of an in-depth narrative history of afforestation in the region. This narrative provided a ‘jumping off’ point for defining individual conflicts. A conflict was defined as an issue involving a distinct combination of topics, actors and processes.

From this analysis, eight distinct afforestation conflicts were identified in the Great Southern region during the time period studied (1988 to 2002). Several of these conflicts

91 A detailed explanation of the analysis used to identify individual conflicts is provided in Appendix 6. A summary of the analysis is provided here as context for the subsequent examination of individual conflicts.
involved the same groups or individuals, but each involved a different set of concerns expressed through distinct processes.

Figure 5.3 shows the different conflicts, and the length of time over which they have been expressed. Where two conflicts are drawn as overlapping, this indicates they involved similar actors, topics and/or processes. Arrows are used to indicate whether a conflict was ongoing either before or after the time period examined.

While each of the eight conflicts is analysed separately below, it is important to recognise that more than one conflict was often occurring in the region at the same time; therefore, events in one conflict had the potential to influence other conflicts occurring at the same time, or future conflicts. These inter-relationships are discussed as appropriate in the analysis of each individual conflict.
Disputes and concerns about impacts of plantations on neighbouring landholders

Concerns over fire risk and fire fighting resources

Concerns over social impacts of ‘whole farm’ plantations

Conflict over impacts of aerial spraying

Dispute over sitting of woodchip mill

Disputes over how logs and woodchips should be transported to port

Concerns over maintenance and upgrading of rural roads

Figure 5-3: Different conflicts occurring over afforestation between 1988 and 2002 in the Great Southern
5.4 Conflict 1: Establishment practices

A relatively short-lived but intense dispute occurred in the late 1980s over the mounding techniques used during plantation establishment.

The information available about the dispute was relatively limited. Despite this, the information that was available allowed identification of critical events which clearly affected the ways in which conflict was expressed and acted upon, so it represents a useful and distinct case of conflict.

5.4.1 Information available on the conflict

This conflict was mostly analysed based on media reports. Only two interview respondents had knowledge of the dispute, and neither of those were directly involved in it. There was a lack of other supporting documentation, a result of the length of time since the dispute occurred and of the relatively localised scale of the dispute, with those directly involved difficult to contact and some relevant documents not able to be located.

While the lack of cross-documentation from a range of sources limited the analysis of the conflict, the data available still provided considerable information. The *Albany Advertiser (Advertiser)* reported in detail on the dispute, and the two interview respondents with knowledge of the dispute believed the timing and nature of the conflict as described by the *Advertiser* was relatively accurate, although one questioned the interpretations of the conflict presented by the *Advertiser*. Given this, it was possible to identify the broad processes involved in the conflict, and triggers that changed how the conflict was expressed and acted upon.

5.4.2 History of the conflict

In 1989, a 35 hectare pine plantation was established by the Department of Conservation and Land Management (CALM) on a private property under a sharefarming agreement\(^2\). This was one of the earliest plantations established under sharefarming

\(^2\) As discussed briefly earlier, sharefarming agreements are partnerships between plantation companies/agencies and farmers, in which farmers provide land for plantation establishment by the
agreements in the region – the concept of sharefarming was only introduced to the region by CALM in 1987.

The Coalition for Denmark’s Environment (CDE), a local ENGO, raised concerns that the mounding techniques used by CALM when preparing ground for plantation establishment would cause erosion, and allow chemicals applied during site preparation to run off into the Wilson Inlet. The Denmark Shire Council (DSC) also expressed concern.

These concerns were reported in the *Albany Advertiser*, with the CDE stating that ‘CALM should have consulted with the land conservation committee and the Department of Agriculture’ before proceeding on the site (*AA* 27/6/1989: 7). It is unclear what other avenues CDE took to raise its concerns, although the group clearly raised concerns with some government departments. It is not known if CDE contacted CALM directly to discuss the concerns.

CALM responded to the concerns via the *Advertiser* (29/6/1989: 7), stating that the mounding technique used - mounding across contours, rather than along contours - had not caused erosion on other properties they had planted with pines in the region in the last two years. CALM’s spokesman also stated that all chemicals used had been approved by the Environmental Protection Authority (EPA) after referral from the DSC. CALM further argued that the Shire had approved the project, and ‘the area was inspected and the proposed area endorsed by the Agricultural Department’. Finally, CALM argued that the project had significant benefits: ‘We’re trying to reverse salinity trends as well as create employment in the area’ (*AA* 29/6/1989: 7).

It is important to examine the nature of the approvals given by the authorities referred to by CALM. CALM had applied to the DSC for approval to establish the plantation. As this early point in plantation sector development in the region, DSC staff had very little expertise or knowledge on the appropriateness of particular practices used to establish

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plantation company/agency, and receive a share of the returns from the plantation and/or an annual payment for use of their land. They are described in more detail in Appendix 5.

93 References to the *Albany Advertiser*, and in Chapter 6 to the *Leitrim Observer*, are referred to by the date and page number of the article, to avoid confusion between the many articles referred to. All articles found in these newspapers are listed in Appendices 7 and 10 respectively.
and manage plantations. Even twelve years later, when interviews were undertaken for this study, three interviewees from the plantation sector and local government believed there remained a general lack of adequate resources and expertise within local governments to evaluate proposals to establish plantations. It therefore seems likely that, at this early stage in plantation establishment, the DSC would have been giving approval without having clear guidance on what constituted appropriate plantation establishment and management practices.

It is also not clear if the Department of Agriculture approval involved approval of the proposed establishment practices, or if it focussed on other aspects of the proposal. According to two plantation sector interviewees who had been involved in plantation establishment in WA in the late 1980s, there were often no existing guidelines on which to base approvals during the early period of plantation establishment in the region, although they also reported that this changed rapidly.

On July 11th, the Advertiser reported concerns from a farmer who had entered into a sharefarming agreement with CALM. He stated dissatisfaction with the mounding practices used. He also raised a number of other issues, reporting that mounding had restricted vehicle access to parts of his property, creating a range of farm management problems (AA 11th July 1989 p3).

CALM once again responded to concerns in the Advertiser, stating that the mounding techniques would not cause erosion, restrict vehicle access or cause other problems. The rationale behind mounding across contours was explained, and the softwood sharefarming scheme was promoted as ‘attracting great interest from the agricultural sector following the recent drop in wool prices’ and being ‘a good way to supplement the farmer’s income without him having to do much labour.’ (AA 18th July 1989 p3).

Over the next two months, severe erosion occurred on the site which had caused the initial concern. In August, the CDE approached the Commissioner for Soil Conservation about the erosion problem (AA 31st August 1989 p3).

CALM took action to repair the erosion on the site. The Advertiser articles imply this was in response to the CDE raising concerns with the Commissioner, although one
interviewee stated that CALM had taken action prior to this, as soon as erosion was apparent on the site.

In October 1989, it was announced that the Department of Agriculture ‘now plans to train CALM personnel in future site preparation procedures to reduce the possibility of degradation’. CALM and the Department of Agriculture began working on a procedures manual which would include guidance on mounding techniques (AA 24th October 1989 p20).

Further concerns over erosion and mounding practices have not been reported in the Advertiser subsequently, and were not raised as concerns in any interviews conducted for this case study. Concerns were not reported by either Kelly and Lymon (2000) or Tonts et al. (2001).

However, two interview respondents stated that concerns were still expressed, primarily by members of the farming community, over some establishment practices used by the plantation sector. These concerns were not, however, reported as specifically referring to mounding practices, instead being reported as more general concerns about a range of establishment practices.

Guidelines for mounding practices have been included in both the 1997 Code of Practice for Timber Plantations in Western Australia, and in internal guidelines used by particular plantation companies/agencies.

5.4.3 Did positive change occur in the conflict?

Overall, the conflict shows signs of changing positively with regard to most dimensions of ‘success’ as defined in Table 4.1. However, the new processes instituted did not involve increased participation or consultation prior to making decisions, and there is no evidence that relationships improved substantially between the parties involved in the conflict. Despite this, there is little if any ongoing conflict.

Outcome-based evaluation

There was a clear drop in level of publicly reported concern and in hostile exchanges between the parties involved in the conflict. Media reporting of concerns only occurred
in 1989, and interview respondents reported no significant conflict over this particular establishment practice since the end of this dispute.

**Process-based evaluation**

The drop in levels of publicly expressed conflict was associated with institution of changed processes providing guidance on mounding practices, and changed mounding practices. The changes in process were not, however, associated with an increase in communication or interaction between different groups who were involved in the dispute.

**Relationship-based evaluation**

Relationships between groups did not necessarily improve greatly. Similar groups were involved in subsequent disputes. However, some improved communication – indicative of improved relationships – was established between CALM and the Department of Agriculture. There was no indication of improved relationships or interaction with the DSC, or with landholders.

**Transformation-based evaluation**

The conflict arose at least partly as a result of the introduction of a new land use into a regulatory context lacking processes and skills for regulating afforestation. The processes subsequently instituted allowed evaluation of proposed plantations based on greater knowledge of the likely impacts of different practices.

**Goal-based evaluation**

The goals of the participants in this conflict were met. CALM did not want erosion to occur any more than the farmers, ENGOs or local government involved in the dispute. The changes implemented addressed at least some key concerns over erosion issues, although there is some evidence of ongoing concerns expressed over other establishment practices in subsequent years.

**5.4.4 Event history analysis**

Figure 5.4 shows the key events that occurred in this conflict. When the events were analysed, it became clear that a similar pattern of events occurred more than once,
forming a feedback loop that kept occurring until a critical event caused a shift in the way the dispute was expressed and acted upon.

Initially, the conflicting groups had clear differences of opinion that were not resolved by each side presenting its case. The use of information dissemination, in which CALM explained its rationale for mounding across contours and promoted the benefits of sharefarming, did not resolve the concerns raised by the CDE, Denmark Shire Council, and farmers. CALM did not initially believe that concerns over the possibility of erosion were legitimate. This led to the feedback loop shown in Figure 5.4, in which conflicting views were expressed repeatedly without shifting any closer to each other.

If a critical event had not occurred to break this pattern, the dispute may have remained in this unproductive cycle of communication for some time.

The critical event that changed the conflict was the occurrence of erosion on the plantation site over which public concern had first been expressed. This event acted to shift the views of different groups to a point where they converged, and led to actions that reduced concerns.

Most of the initial events shown in Figure 5.4 followed a clear causal chain. Establishment of plantations was clearly needed for concerns over how those plantations were being established to occur. Public reporting of initial concerns does appear to have led to expression of further concerns, e.g. from the farmer quoted in Advertiser, and to repetition of concerns in the media.

It is possible, but by no means certain, that the changes made to practices after erosion was observed occurred more rapidly as a result of the well-publicised concerns that preceded the erosion. However, according to both interview respondents who discussed the dispute, the changes made to mounding practices would probably have been implemented whether or not concerns about erosion had been expressed publicly. Both of these respondents, one from the plantation sector and one from the local government sector, gave other examples of changes in practices occurring after impacts were observed, and emphasised that these changes were implemented irrespective of whether the practices involved had attracted public criticism.
Plantations established by CALM under sharefarming agreements in region. Plantations approved by Shire and Dept of Agriculture.

Concerns raised by CDE and Denmark Shire Council about mounding practices. CDE expresses belief that CALM has not consulted adequately with relevant authorities before undertaking the work.

CALM responds by defending the techniques used, outlining approvals obtained, and promoting benefits of plantations.

Similar concerns, along with others, raised by a farmer who had taken part in a share farming agreement.

Erosion occurs on newly established plantation site.

The erosion is repaired by CALM.

Announcement made that CALM and the Department of Agriculture will work to reduce potential for any further erosion. Similar guidance on mounding included in various subsequent best practices guides both within individual companies and across the whole industry.

Figure 5-4: Event history analysis of conflict over establishment practices in the Great Southern
What is not clear is whether the change in practices would have occurred in consultation with external parties, e.g. the Department of the Agriculture, without the presence of the concerns expressed prior to erosion occurring. CALM may have worked on the erosion problem without consulting other departments if the dispute had not been as high profile.

This dispute was localised and based around different understandings of potential risks resulting from particular establishment practices. The conflict process appeared to be settling into a relatively stable feedback loop of concerns being expressed and responded to when it was shifted by the occurrence of a critical event – erosion. This event triggered re-framing of the views of different groups, resulting in a higher convergence of perceptions about mounding, and to implementation of new processes to prevent erosion.
5.5 Conflict 2: Talking with the neighbours

A majority of interviewees reported that many concerns had been raised about the impacts of afforestation on neighbouring landholders, and that a number of disputes had occurred between plantation managers and landholders neighbouring plantations. These ‘neighbour conflicts’ involved anything from a neighbour complaining to a friend about the practices of the plantation manager, to prolonged disputes between a neighbour and a plantation manager about whether or not a particular practice could or should be undertaken, or about who was responsible for taking action about issues such as a broken fence.

Although acted out in many different, individual incidents involving different people, these incidents shared the common characteristic of involving plantation managers and neighbours, and being over the impacts of plantation-related activities on nearby land. Therefore they were analysed as a single conflict.

5.5.1 Information available on the conflict

The majority of data collected on this conflict was provided in interviews undertaken for the case study. Few media reports discussed ‘neighbour’ scale issues.

Interviewees who discussed this conflict included several representatives of the plantation sector, three representatives of farming organisations, and three landholders whose properties neighboured plantations.

Given that the analysis of the conflict had to rely on the reports of interviewees, emphasis was given to analysing whether those who initially held different perspectives in this conflict agreed on whether and how the conflict had changed over time.

5.5.2 History of the conflict

Development of a linear history of this conflict was not possible except in a very broad sense. Interview respondents reported that concerns had been reported by some landholders neighbouring plantations even in the earliest stages of plantation expansion in the region, and could not identify particular points at which the dispute intensified, other than noting an improvement at the end of the period studied.
As a result, this section describes the nature of the conflict, beginning with some specific examples, and then discussing the broader shifts in the processes by which neighbour conflict was expressed and acted upon over time.

A range of concerns raised by landholders neighbouring plantations were discussed by interview respondents. These concerns were reported to have occurred from the time plantations began to be established in the region, and to still be occurring in 2000. They were reported by all but one plantation sector interviewee:

... you've got your ... neighbourly conflicts and that's probably the biggest one that arises and the one that happens most often but for us it's probably the easiest one to fix. (Plantation industry respondent # GS5)

The frequency of concerns could not be estimated. Interviewees reported that some neighbours expressed concerns about particular issues, while others did not. Two plantation sector respondents believed that only a minority of neighbours expressed concerns; while two farming sector representatives and two landholders neighbouring plantations believed that concerns were widespread throughout rural communities. All that could be determined was that considerable levels of concern had been expressed by at least some neighbours of plantations.

The types of concerns expressed by neighbouring landholders included that establishment of plantations led to:

- increased ‘vermin’ management problems on their property, described further below;
- chemical run-off onto neighbouring properties;
- run-off and drift of chemical sprays onto neighbouring properties;
- shading of neighbouring pasture, crops and houses by trees;
- problems with drainage management; and
- problems with fire break positioning and management.

All interview respondents who discussed the issue agreed that one of the most common concerns was that establishment of plantations led to increased numbers of feral and
native animals—usually referred to as 'vermin' by landholders—living in plantations but feeding/hunting on nearby agricultural land.

Interviewees from plantation companies, when asked how they address vermin concerns, gave a range of examples of actions. These included shooting and baiting programs run by plantation companies, as well as several instances where plantation companies had joined local and regional groups which work on controlling pest species. For example, CALM and Great Southern Plantations (GSP) were two of the four partners involved in a joint program in 2001 to control feral pigs in the area near Denbarker and between Rocky Gully and Lake Muir; the program was also assisted by 'a steering committee of local landowners and agency representatives' (Kent/Denmark Recovery Team 2001). This was a typical type of response described by all plantation industry respondents:

we do community fox baiting, we've let the ag. protection guys know that if they're doing a community baiting and we've got plantations in that area tell us and we'll do it. (Plantation industry respondent # GS4)

in fact, the vermin control that we do is the best that— that the areas have ever seen in term of [controlling] rabbits and foxes ... and we pay people to go and shoot wild pigs. (Plantation industry respondent # GS2)

However, three interviewees also described that in some cases it took some time for the plantation sector to realise the importance of these types of control programs.

Concerns over chemical drift onto neighbouring land were expressed both at neighbour scale, and as a much larger scale issue discussed as a separate conflict. Plantation sector responses to concerns over impacts of aerial or ground-based application of chemicals have included information dissemination, ensuring they explain how, where and when chemicals will be applied, and sometimes changing how chemicals are applied to address neighbour's concerns. In one case, an interviewee discussed implementing remedial action when an accidental run-off occurred onto a neighbour's property:

...we applied [a particular chemical to control weeds], firebreaks got wet, there was a bit of run-off into the neighbours paddock, and therefore we started to kill his pasture or part of his crop ... we visited the farmers we apologised and did all those sort of things, I'm not aware of any of those ever blowing up again after that initial contact, they just said oh well, OK, and we said look
when we’re out there we’ll have a look and if we see any signs of erosion or get something in here we’ll fix it up we’ll reseed it these are the promises that we’ll make ... from then on in subsequent firebreak spraying we just you know we dropped [that particular chemical] out of the mix on those properties ... (Plantation industry respondent # GS4)

Concerns that plantation trees might shade neighbouring pasture and houses were also expressed. Reported responses to this concern included information dissemination about the benefits of shelter for stock, and designing plantations to reduce potential shading.

All the examples of different types of concerns above involved relatively similar processes of communication and action. While it is important to understand the range of different neighbour-scale concerns that may occur, emphasising that many practices have the potential to impact neighbours, the common element that needs to be examined is the processes by which both plantation managers and their neighbours have communicated about the various neighbour-scale issues.

When this process was discussed, a surprisingly uniform picture emerged from interviews, with both plantation and farming sector interviewees agreeing that a substantial change had occurred over time in how they communicated with each other and acted on these issues.

In early years of plantation establishment in the region, plantation managers tended to carry out many management activities in their plantations without contacting neighbouring landholders beforehand. This meant that in many cases neighbours were only able to raise concerns once activities were underway, rather than before. Three interview respondents believed this led to a situation where neighbours became anxious because they didn’t know what was happening on the neighbouring property, and if it might have a negative impact on them.

From the mid to late 1990s, plantation companies increasingly implemented formal and informal processes in which neighbouring landholders were consulted before activities were carried out in plantations. This was done to try to reduce the level of concern being expressed, according to four plantation sector members interviewed. The extent of this

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94 This was generally the case for all activities except those where the law required prior notification or nearby or neighbouring landholders before undertaking the activity.
consultation varied between companies, but often included contact prior to initial establishment of plantations, as well as before activities such as chemical application (ground or aerial), fertiliser application, vermin control activities and, as plantations began to mature, harvest:

... as far as neighbours are concerned ... apart from everything, you know, neighbours are potential customers as well, so we wanna stay the good guys, we keep them briefed on everything we do as far as burning, spraying, anything like that ... So we have a fairly good neighbourhood consultation process. (Plantation industry respondent # GS5)

Associated with this consultation was, in many cases, willingness to take action to change practices to accommodate and address concerns of neighbouring landholders. Representatives of two plantation companies described examples where changes had been made, including redesigning firebreak locations to reduced potential shading, changing the mix of chemicals or chemical application method used for weed or insect control, or changing other aspects of the design and management of plantations.

This shift was assisted by groups such as Timber 2002, and some members of the plantation sector, who encouraged meetings to discuss strategies for being a good neighbour:

... because forestry companies don’t have a basic farming ethic, or they’re not taught farming in their forestry degrees, they’re unaware of the issues relating to boundary issues and [we tell them] basically go and meet your neighbour, go and shake hands ... make yourself known, help in the fox baiting teams, be part of the community ... (Government agency respondent # GS1)

From the late 1990s onwards, companies increasingly documented the consultation procedures to be undertaken in relation to different afforestation and plantation management activities, ensuring a formal process requiring neighbour consultation was in place. There were also proposals for the sector as a whole to develop a more formal ‘good neighbour agreement’ guaranteeing the level of consultation and action plantation managers would take in relation to activities that might concern neighbours. At the end of the time period studied, no agreement had been adopted, but representatives of all major companies and agencies in the sector had substantially increased their levels of neighbour consultation since the early days of plantation expansion in the region:
Timbercorp regularly liaise with our neighbours on matters such as common fences and community fire brigade requirements. We maintain a database of our neighbors, (sic) providing ready assistance and communicating about issues such as vermin control, fire management and use of chemicals. We aim to be co-operative with our neighbors (sic), and are always open to suggestions on anything that will help us better manage our properties. (Timbercorp 2003a)

All plantation sector interviewees reported that increased consultation with neighbours, occurring before activities took place on a property, resulted in reduced levels of conflict. However, two plantation sector respondents believed that in some cases, neighbours were not directly contacting plantation companies about their concerns but were instead talking to others, and expressed frustration that this made it difficult for them to address concerns; another respondent said there were still difficulties convincing all people within the plantation sector to utilise the ‘consult and negotiate’ approach:

There’s those [in the plantation industry] who say ‘oh, you should tell them to bugger off’ and then there’s the people who are prepared to sit down and talk to people, and I think the more people are prepared to sit down and talk to people the better. (Plantation industry respondent # GS2)

Three plantation sector interviewees emphasised that in many cases, adequate prior consultation ensured that practices did not have to be changed. For example, one company reported that high levels of concern over aerial fertilisation effectively abated once improved forward consultation took place, to the extent that the practice could be continued with little change. Additionally, two reported that consultation with neighbours had enabled them to rapidly identify and address issues that might impact their plantation, improving efficiency and effectiveness of their property management.

However, two plantation sector respondents also emphasised that the extent to which it was possible to change practices was limited, and that in some cases changes could not be made that satisfactorily addressed the concerns of neighbouring landholders.

While all plantation sector respondents reported improved relations with neighbours following implementations of improved consultation, other interviewees believed the change had been less comprehensive than was reported by the plantation sector:
There is some improvement and some of the companies are talking a lot more to the people nearby ... but we still get complaints from farmers who have been affected by something done on the plantation next door. (Farming sector respondent # GS3)

Importantly, however all did agree that there had been a change for the better.

Of the three neighbouring landholders interviewed, one discussed concerns over management practices when afforestation took place on a neighbouring property in the early 1990s. Her calls to the plantation company involved were returned only after a delay and not acted on, and the issues had not been resolved. The other two landholders reported that in the late 1990s they had experienced positive interactions with individuals managing plantation neighbouring their property, and that this consultation together with joint planning had prevented negative impacts from occurring.

All three farming representative group interviewees agreed that consultation practices by the plantation sector had improved over time. However, they emphasised the need for changes to practices, rather than simply for neighbours to be informed of activities. All three were strongly in favour of development of a good neighbour agreement to formalise the types of consultation already occurring.

5.5.3 **Did positive change occur in the conflict?**

Overall there was a clear pattern in which consultation prior to undertaking activities, combined with a willingness of the plantation sector to change activities as and if needed, led to reduced conflict. Lack of consultation – whether changes were needed to the planned activity or not – appeared to be associated with higher levels of concern from neighbouring landholders.

There is, therefore, clear evidence that consultation and changing practices can positively change this type of conflict, even though the extent to which this has been achieved is debated.

**Outcome-based evaluation**

It was difficult to evaluate whether the overall level of concerns held and/or expressed by neighbours had changed over time. Neighbour issues have not been widely reported
in the media, and so it was not possible to use media reports to track levels of conflict over time.

All interview respondents, including those with differing views on the content of the conflict, agreed that at least some improvement had occurred in neighbour relations over time. The extent of improvement was debated, with plantation sector respondents reporting greater levels of improvement than other interviewees. This indicates that levels of unproductive conflict definitely declined, with the debate over the extent to which conflict had changed for the better, rather than about whether it had.

**Process-based evaluation**

The processes used to interact with neighbours clearly changed over time, in ways that encouraged increased communication between plantation companies and their neighbours. Opportunities to raise concerns were made available prior to plantation sector activities being undertaken, allowing change to be negotiated to the planned activities in some cases.

**Relationship-based evaluation**

The change in processes led to improved relationships between plantation managers and their neighbours in many cases. However, one landholder, while agreeing that the neighbour scale issues were improved, still expressed considerable distrust of the plantation sector as a whole, although he had developed a good personal relationship with the individual managing the plantation that bordered his property.

**Outcome-based evaluation**

This conflict was suggested by several interviewees to be the result of the introduction of a new land management culture into the agricultural landscape. Some suggested this led to conflict, with foresters not understanding the importance of communication with their neighbours, or the implications of their actions for neighbouring landholders; at the same time, farmers had a similar lack of understanding of the ways plantations were managed, leading to high levels of anxiety about potential impacts. Some culture shift does appear to be occurring through the increased communication, although the extent to which this is the case could not be determined.
Goal-based evaluation

The goals of different participants in this conflict varied. Plantation companies and agencies wished to be able to establish plantation in a cost effective and timely manner. Neighbour disputes had the potential to delay undertaking required plantation management activities. The goals of neighbours were, in the context of this type of conflict, to ensure that neighbouring plantations did not have a negative impact on their property.

In some instances, the shift to early notification and improved opportunities for communication and negotiation allowed the goals of both parties to be achieved. This was not always the case, however, with both plantation and farming sector interviewees reporting that in some cases agreement could not be reached between neighbours. In some cases this failure reported by members of the plantation sector to be a result of the plantation sector being unable to implement the changes requested by a neighbour. In others farming sectors interviewees reported that the consultation opportunities provided by the plantation sector were still inadequate.

5.5.4 Event history analysis

Constructing a coherent series of events from repeated, similar events, and from responses that have been implemented incrementally over time in the region, was challenging. The EHA developed and shown in Figure 5.5 was based on a typical scenario of a neighbour dispute and how this typical scenario changed over time, rather than on documenting actual events in the case study region.

Figure 5.5 highlights the shift in communication processes over time, showing two distinct types of communication process - the early communication style and the more recent communication style. By showing the events typically occurring in either of these processes, and examining causal relationships in each chain of events, an important insight emerges - either of the two processes shown has the potential to result in a satisfactory or unsatisfactory outcome.

While early consultation is required for discussions to occur between neighbours before plantation management activities take place, there is no guarantee these consultations
will result in an outcome satisfactory to both parties. Equally, a satisfactory outcome is possible without consultation occurring at all – as long as the activity undertaken is not believed to cause negative impacts.

Interview respondents identified many examples where undertaking a plantation management activity without prior notification did not result in concern from neighbours, confirming that in many cases a satisfactory outcome occurred without consultation being undertaken. Conversely, the lack of satisfaction reported with some outcomes even after improved consultation practices were implemented confirms that consultation alone does not necessarily led to satisfactory outcomes for all parties.

Whether a satisfactory outcome is achieved appears therefore to be entirely dependent on whether the communication between plantation managers and neighbours results in a satisfactory outcome – either by reassuring the neighbour that the planned activity will have no impact, or by agreeing on suitable changes to planned activities that are satisfactory to both. The consultation process provides a space for this type of dialogue and action to occur, but does not in any way guarantee that it will occur.

Farming representatives interviewed emphasised that physical changes to plantation management activities had led to improvement in conflict, indicating that the key trigger ensuring a more positive outcome is willingness to make changes to plantation management. While early consultation creates space to make these changes, the economic and physical constraints faced by plantation managers mean that it is not always possible to change planned activities in the ways proposed by neighbouring landholders. Therefore, the more recent process results in less conflict, but is not able to achieve a successful outcome in all cases.
**Typical process in earlier years**

- Company/agency plans plantation management activity

- Plantation management activity undertaken

- Concerns raised by neighbour about the activity when they observe it happening

- Response to concern (if any) occurs after activity has started

- Satisfactory outcome dependent on whether activity has a (perceived or real) negative impact on the neighbour and response to concerns

**Typical process in more recent years**

- Company/agency plans plantation management activity

- Neighbours notified of planned activity before it occurs

- Neighbour discusses any concerns with plantation company; action may be taken to address concerns

- Plantation management activity undertaken

- Satisfactory outcome dependent on consultation resulting in outcomes that meet needs and goals of both parties

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Figure 5-5: Event history analysis of neighbour conflicts in the Great Southern
5.6 Conflict 3: Fire risk and management

Ongoing debate has occurred in the region over the fire risk represented by plantations, and over provision of fire fighting resources. This conflict is a complex set of related issues about management of fire in the region. The extent to which it could be studied was limited, as discussed below, but it presents a useful case of a conflict in which a relatively steady, repeating process for expressing and acting on conflict appears to have established, with no major shifts over time despite considerable work developing processes for managing fire risk.

This conflict is important precisely because it has remained at a relatively steady intensity over time, constantly renegotiated through a range of processes that allow key stakeholders to communicate about key issues on which they have different perspectives. As such, it provides a useful contrast to the other conflicts studied, which changed substantially over time.

Similarly to neighbour conflicts, this conflict comprised multiple actions undertaken by different actors in different places, not all of which overlapped. These actions had a consistent theme related to the topic of fire management, and were acted on using relatively similar processes in the different situations, and so were considered to form a single type of conflict.

5.6.1 Information available on the conflict

Some information on this conflict was obtained from media reports discussing concerns held about fire risk. Most data, however, was sourced from interviews with five people involved in fire management activities from both local government and the plantation sector, three of whom were also members of community fire brigades. These representatives sat on three different committees in which fire management issues were discussed, as well as being involved in various other roles related to fire management.95

95 The names of the specific committees, and the specific range of roles, cannot be described in detail as this would likely allow identification of those interviewed.
This conflict was characterised by a group of associated processes occurring in different areas at various times. It was not possible to review the views of all community fire brigades, or local governments, about the adequacy of fire management procedures in their region; or to document the many types of interactions occurring between the plantation sector and different local government authorities. However, an overall picture of the types of concerns held, and the processes used to manage fire risk, was developed from interviews, media reports and other documents.

It is important to emphasise that, as the information collected was partial rather than comprehensively documenting all instances of conflict over fire management, some unique actions taken to address issues in specific locations may not have been documented.

5.6.2 History of the conflict

Bushfires are a common occurrence in many parts of Australia, including the Great Southern where the time of greatest fire risk is during summer (particularly December through February). During the 2004-2005 financial year, 8,925 bushfires were attended by firefighters in WA (FESA 2004a,b).

As early as 1847, an ordinance was passed in WA forbidding any person to ‘wilfully or carelessly’ set fire to vegetation between the months of September and April, and from 1885 the Bush Fires Act in Western Australia enabled the government to declare times when burning of vegetation was prohibited.

Bush fire brigades – commonly referred to as ‘community brigades’, as the firefighters are volunteers - were established in WA from the 1920s, and in 1937 local governments were given the power to establish local bush fire brigades as well as regulate compliance with fire regulations. From this point, community fire brigade equipment was generally purchased and maintained by local governments. In 1954, the Bush Fires Board was established, a State board that coordinated bushfire prevention and fighting activities. In 1997, the Fire and Emergency Services Authority (FESA) was established, and the Bush Fires Board became the Bush Fire Service operating within the Fire Services Division of FESA (FESA 2004a,b).
Given the high incidence and risk of bushfire, fire management was a key part of plantation planning and management from the start of plantation development in the region. A range of fire prevention and management measures, such as establishment and maintenance of firebreaks and water points on properties, have always been an integral part of plantation management.

Concerns that increased areas of plantation might present an increased fire risk, and required specific fire management strategies, were raised publicly from relatively early in the time period studied. Initial media reports discussing concerns about plantation fire risk first appeared in the mid 1990s. Interview respondents reported that disagreements over aspects of fire management were noticeable primarily from the mid 1990s, when the rate of plantation establishment increased rapidly, and all agreed that concerns had been raised:

... there's been a number of accusations about increasing fire risk, increasing load on volunteer fire services, ah about contributions to fire suppression and surveillance activities [by the plantation sector] ... (Plantation industry respondent # GS6)

Concerns raised about fire risk and fire management included:

- perceptions that plantations represented an increased fire risk compared to the crops/pasture they replaced;
- perceptions that plantation expansion would reduce membership of community fire brigades, due to people leaving the region when plantations were established; and
- debate over the appropriate level of investment by the plantation sector in its own fire fighting resources, and in its contributions to community fire brigade resourcing.

All three concerns were reported as a group in media reports and by two interviewees from the farming sector and local government. Because of this, they are treated as part of the same conflict, although there are clear links between concerns about membership of community brigades and concerns about rural decline.
These three concerns were reported to have been raised on an ongoing basis by all interview respondents who discussed fire-related issues. As such, it was again difficult to construct a chronological history of events in this conflict, given that many repeated events occurred in different spaces over time. Most interview respondents focussed on describing the strategies and processes implemented over time to try to address different concerns, and so the discussion below focuses on these.

Concerns over fire risk

Four plantation industry respondents and one local government respondent reported that members of rural communities often expressed concern that plantations represent an increased fire risk. These concerns were expressed in many ways in rural communities, at venues ranging from Landcare meetings to the pub, local government and public meetings, and on occasion to the media. No interviewees could identify particular groups more likely to raise concerns than others, instead identifying that ‘many’ people living in rural areas held concerns.

Plantation sector respondents all described using scientific evidence to counter the concerns raised about fire risk:

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... well established and well managed plantations tend to have a fairly low fire risk once they've been established ... [there have] been quite a few documented cases where fires have come out of native forest, out of control, and hit the blue gum plantations which are well managed and literally just stopped within a hundred metres. ...The only thing against that is that poorly managed plantations probably are an increased risk. (Plantation industry respondent # GS6)
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For example in 1995 Bunnings discussed two reports on minor fires that had occurred in plantations, emphasising that ‘the reports concluded that plantations were less likely to burn than native forest with understorey. In one case the plantation had acted as a firebreak.’ (AA 6/6/1995: 8). On June 15th 1995 (AA: 6) a similar letter was published, from CALM’s Plantation’s Group Manager, stating that ‘Well managed plantations are less of a fire hazard than native bush or even ungrazed pasture...’ and stating some examples of fire control by plantations.

Responses to concerns often included promotion of planting farm land with commercial plantations. For example, on June 13th 1995 a letter was published in the Advertiser...
from a farmer and member of Timber 2002, who argued that there was strong evidence that plantations, rather than being an increased fire risk, can help control wildfire by acting as buffers (AA 13/6/1995: 6). The letter also stated that ‘Blue gum plantations will increase the viability of most farms, provide more jobs and be a great export earner.’

The plantation sector invested resources in research on fire risk and management of plantations to reduce fire risk, resulting in the studies often quoted in response to expression of concerns.

Fire fighting resourcing – people

Concerns about resourcing of fire fighting, particularly availability of fire fighting volunteers, were raised both when concerns over fire risk were discussed, and also in conjunction with concerns about rural decline:

Concerns have been expressed that small rural communities like Denbarker could be lost to major tree plantations. ... [a] Manypeaks farmer ... said no more than 30 per cent of a farming property should be taken up with plantations. ... “The majority of plantation owners don’t live on the property, they live in town, so what will happen if there is a fire?” (AA 20/09/1994: 1)

Concerns about rural decline associated with concerns about provision of fire fighting volunteers are discussed further below as part of broader conflict over ‘whole farm’ plantations.

The plantation sector responded to concerns about resourcing of fire fighting by disseminating information about the actions taken by the sector to provide and support fire fighting resources:

Bunnings Treefarms Chief forester (sic)... said “... As for fire management, property owners we lease land from are employed as firefighters. Bunnings is very active in the local bushfire brigade system ...” (AA 04/10/1994: 5)

Australian Plantation Timber organised a travelling road show through four shires as part of its community education program for Fire Suppression in the Great Southern region. APT’s Estate Manager, John Ipsen acknowledged concerns had been raised at recent Blue Gum meetings throughout the Great Southern regarding fire suppression and he stressed APT was serious about fire control. (Ipsen 2000)
We [the plantation company] contribute to fire trucks and sheds and stuff all around the districts ... and we have our own fire roster system, a part of the system of volunteer firefighters. (Plantation industry respondent # GS5)

... we've actually put more people in the region who are – who are trained in fire management ... they're all in the volunteer fire brigades, we provide in addition to the levy that's on the rates we also provide equipment for the local fire brigades ... (Plantation industry respondent # GS2)

**Fire fighting resources - equipment**

A key issue raised in interviews was the presence of ongoing debate over the level and nature of the plantation sector’s contribution to community fire brigade equipment. This has been a source of contention in several Shires, and according to two interview respondents is an issue on which there is often disagreement between local government authorities and plantation companies. Companies have generally negotiated the level of their contributions to community brigades and reported these negotiations are often continuing sources of tension with local government, as disagreements arise over the appropriate level of contribution.

**Processes used to express and act on conflict**

Two parallel processes were used to express and act on disagreements over fire management. The first was the development of a range of committees and communication processes involving both the plantation sector and a range of rural agencies and organisations, particularly those responsible for rural fire fighting and management. The second was information dissemination by the plantation sector about how they address fire management issues.

**Fire management planning processes**

The processes used to discuss and plan for fire management in plantations were often those already used to plan for rural fire management more broadly, although some specific processes were instituted for planning for plantation-related fire management. In general, the plantation sector was highly involved in rural fire planning processes from early stages of plantation establishment in the region, although plantation-specific planning processes tended to be established mostly from the mid-1990s.
Because companies often had different types of communication in place with different Shires, it was not possible to document all the processes used. However, some specific examples are given below.

Existing fire authorities and committees worked with the plantation sector to examine and act on specific issues raised about plantation expansion:

Some farmers and local authorities have raised concerns about the fire risk in expanding blue gum plantations on the South Coast. ... The Bushfires Board has established a plantation committee to look at these issues. The committee involves the board, the five local shires involved and representatives from all the growers. Bushfires Board spokesman Russel Gould said a variety of solutions had been discussed at last week's meeting. (AA 06/06/1995: 8)

In 1998, FESA produced *Guidelines for Plantation Fire Protection*, which provides guidance for fire management in plantations.

Fire services personnel in both the Great Southern and South West regions also convene meetings of Plantation Fire Advisory Committees which provide an opportunity for liaison with plantation industry and local government representatives over fire risk management issues (FESA 2000).

As well as these broader processes, at least three (and probably more) plantation companies held regular meetings with representatives of local Shires to discuss fire management strategies.

**Information dissemination**

Information dissemination remained a key tool in addressing concerns over fire risk to the end of the period studied. For example, Timbercorp (2003b) detail management procedures in plantations that reduce fire risk such as reducing fuel loads on the ground in plantations, as well as their investment in training and in fire fighting equipment.

All respondents who discussed the issue, including both plantation sector and other respondents, believed that perceptions that plantations represent an increased fire risk remain common, and that concerns over fire management are a continuing issue. However, all could identify a range of processes through which negotiation on these processes was ongoing, and a range of strategies used to reduce fire risk and to provide resourcing for fire fighting.
5.6.3 Did positive change occur in the conflict?

This conflict did not change either positively or negatively over time. It has remained an ongoing issue which is negotiated on an ongoing basis through various processes. Importantly, the conflict has rarely reached levels of high intensity, except perhaps in some debates over the extent to which the plantation sector should contribute to community fire fighting equipment. This suggests that current processes provide adequate space for concerns to be expressed and addressed to the extent that the concerns have not increased in intensity.

**Outcome-based evaluation**

The content and intensity of the conflict have not changed substantially, if at all. Concerns were reported occasionally in the *Advertiser* from the mid 1990s onwards (Figure 5.6). The timing of reports was not related to factors such as the level of fire risk in summers of the years where more concerns were reported, and so public expression of concerns does not appear to be related to the level of fire risk occurring in the region at different times, or to particularly bad fire seasons. Interviewees generally felt that perceptions that plantations represent a high fire risk and concerns about resourcing of fire fighting remained common even when they were not reported regularly in the media, but that at the same time these are able to be addressed on an ongoing basis when they are raised.
Figure 5-6: Number of articles and letters published in the Albany Advertiser reporting concerns about plantation fire risk and management in the Great Southern

The concerns expressed have not for the most part developed into escalating levels of disagreement, although some instances of relatively intense disputes involving particular Shires were reported.

Process-based evaluation

For the most part, concerns appear to have been channelled into a range of processes where issues such as provision of resources are constantly raised and discussed, with different parties able to come to at least short-term agreement on particular issues such as contributions to be made to community fire brigades. This agreement is then renegotiated on an ongoing basis.

The various processes available to express and develop strategies for managing fire management issues are maintaining levels of conflict at a relatively steady state.

Relationship-based evaluation

Relationships between different groups were not reported to have changed for the better or the worse over time. In some cases, good relationships had been established early on
and remained positive. In others, relationships were reported to be poor but communication was still achieved.

Transformation-based evaluation

Institutional structures clearly contribute to this conflict. The funding structures for provision of community fire brigade equipment were believed by two interview respondents to be key causes of disputes between parties, as they negotiate who should be responsible for what proportion of the cost.\(^9^6\)

Goal-based evaluation

The goals of all parties involved in this conflict were the same – to reduce fire risk and ensure adequate provision of fire fighting resources. To date, these goals have been met, with no major fires occurring in plantations in the Great Southern. However, anxiety remains about potential future risks. For example, three interviewee respondents believed this outcome resulted more from good luck than good management, and believed there would be future fire management problems. Six respondents (four from the plantation sector, one farmer and one local government representative) disagreed with this view, believing the processes in place ensure the plantation sector contributes appropriately to fire management in the region.

5.6.4 Event history analysis

Similarly to the analysis of neighbour conflict, a stylised EHA was developed based on the typical cycle of event in this conflict (Figure 5.7).

This cycle began with expression of concerns about fire management implications arising from plantation expansion in the region. These concerns were responded to with four key types of action which have been taken on an ongoing basis by the plantation sector, local government and community fire brigades to discuss and address fire management issues: information dissemination, ongoing negotiation of fire management resourcing, liaison with relevant authorities and brigades, and development of fire

\(^9^6\) In 2004, a shift was made to obtaining community fire brigade funding via a levy imposed on landholders. This has potential to remove this source of conflict, although it is not possible to evaluate the effects of the shift to a levy-based system as yet.
management guidelines. It is likely that many of these actions, with the exception perhaps of information dissemination, would have occurred in the absence of expression of concerns over fire management, as plantation sector members place high importance on fire management whether or not other groups are communicating concerns.

These actions have generally occurred through use of two processes: information dissemination, and interaction in various committees and groups responsible for fire management in the region. The processes used to achieve different actions, while they may have occurred in the absence of concerns being expressed, did act as spaces through which concerns could be responded to.

Conflict has remained in this cycle on an ongoing basis, with little change observable from the data collected. The only key change identified has been the establishment of some plantation-specific committees to discuss fire management issues and develop specific guidelines for fire management in the plantation sector. This did not represent a major change, however, but rather another example of the type of process implemented at various scales to address fire management concerns.

Similarly to the dispute over mounding, this conflict involves concern over risk of a future event. However, this conflict differs in many ways from the conflict over mounding practices. Firstly, a range of processes have existed for concerns to be expressed and acted upon regarding fire management issues from the time they were first raised in the region. Secondly, no major trigger event has occurred to confirm the perceptions of plantation representing a higher fire risk than other land uses.

Evidence supporting the opposite view – that well-managed plantations do not represent a high fire risk – has been gathered, but does not appear to have reduced concern substantially, although there was slightly lower reporting of fire risk concerns in the media in the latter years of the 1990s compared to the mid 1990s.

This is, therefore, a stable cluster of concerns which are likely to continue being expressed and responded to using the processes described, unless a critical event occurs which triggers a shift in the way the conflict is expressed and acted on.
Concerns expressed by groups including local government, community fire brigades and members of local communities

Concerns expressed over fire risk on ongoing basis in media and in other forums

Concerns expressed about level of investment in community fire brigade equipment and equipment owned by plantation companies/agencies

Concerns expressed that plantation expansion reduces membership in community fire brigades by reducing population or displacing population to towns

Main processes used and actions taken by plantation sector to address fire risk and management concerns

Information dissemination aiming to reassure that adequate action is being taken to manage fire risk and adequate resource of fire management is in place, in media and other forums

Ongoing negotiation with local governments of level of contribution to community fire brigade equipment and investment in plantation company/agency owned equipment

Participation in a range of committees, meetings and groups from local to State level e.g. Plantation Fire Advisory Committees, liaison with local government authorities, membership of community fire brigades

Figure 5-7: Event history analysis of conflict over fire risk and management in the Great Southern
5.7 Conflict 4: Aerial spraying

Aerial spraying of pesticides is used in the Great Southern to control insect pests feeding on plantation trees. A high intensity conflict occurred over the use of aerial spraying in the late 1990s. This conflict has the characteristics of a ‘classic’ conflict, including high profile media coverage and use of petitions and other traditional forms of protest, whereas many of the other conflicts studied were not expressed in this way.

5.7.1 Information available on the conflict

Sources of information on conflict over aerial spraying of plantations included interviews with seven respondents directly involved in some aspect of aerial spraying issues; public petitions; media releases from various groups; reports of the Community Consultative Group established to try and address the issue; and extensive media reports.

This documentation allowed recording of the majority of key events occurring in the conflict, although some events remained difficult to uncover – primarily those involving less formal interactions between individuals and groups involved in the conflict.

5.7.2 History of the conflict

Concerns about the use of chemicals by the plantation sector were expressed in some early Advertiser reports on plantations (see for example AA 27/06/1989: 7, AA 29/06/1989: 7). While these concerns did not relate specifically to aerial spraying, they demonstrate an ongoing unease about the use of chemicals for insect and weed control. This unease is not limited to use of chemicals on plantations, with articles found in the Advertiser at various points in time, particularly during 1990, which raised concerns about chemicals used to spray a range of agricultural crops. However, while concerns over aerial spraying of plantations developed into a large-scale conflict in the late 1990s, aerial spraying of other crops did not develop into similarly high profile disputes.

Concerns about aerial spraying of plantations first began to be reported in the Advertiser on a regular basis in 2000, when a newly formed community group called the Great Southern Group for Smart Tree Farming (GSGSTF) made the issue one of their
priorities (AA 27/1/2000: 6). The GSGSTF believed aerial spraying could result in spray drift. They were particularly concerned that spray might end up in drinking water, as many residents relied on rooftop tanks for their drinking water supplies. They believed the chemicals used could cause health problems through skin contact or ingestion (AA 27/1/2000: 6; AA 30/3/2000: 2).

The rise in concern occurred at the same time as a rapid increase in the area of plantations being aerially sprayed:

Early in the development of the [plantation] industry ... insect pests were ... recognised as a significant detrimental factor in the growth of the trees, with the aerial application of insecticides being seen as the only logistically feasible and cost-effective method of control by most plantation companies.

In 1999/2000 approximately 15,000 hectares of bluegum plantation were sprayed with insecticide from the air. Alpha-cypermethrin was most commonly used although dimethoate was often mixed with the former to provide greater residual life to the chemical. Dimethoate has a strong odour and this, together with the greater use of aerial application, increased community concerns about short and long term health issues. (Kelly 2001: 4)

Initially, the conflict was largely enacted through the local media. Concerns were raised and reported in the media, and the plantation sector responded via the media by stating that there was no need for concern over aerial spraying, detailing the measures used to ensure spraying was safe (eg AA 29/2/2000: 4). This type of exchange occurred several times in the Advertiser, and reports were also carried in other media including local radio.

Plantation managers reported feeling unfairly targeted by critics, and often spent considerable time in interview detailing the range of safety protocols in place to ensure aerial spray drift did not occur. Most believed that if these protocols were better understood, few to no concerns would be expressed about aerial spraying. The plantation sector tended to dismiss criticisms as unfounded:

... aerial spraying's been round for donkey's years and I think it's only just because we're new, because we're plantations, let's find something wrong so we can [criticise] them. (Plantation industry respondent # GS2)
The conflict rapidly escalated from this initial type of exchange, however, with concerns expressed more often and in an increasing number of forums.

The GSGSTF started a petition which called for a ban on aerial spraying of ‘intensive monoculture tree farming’ in the Great Southern. On the 29th of March the petition, with a total of 1132 signatures, was presented to State parliament. A second petition was presented with 524 signatures on 27th June 2000, and a third on 12th September 2000 with 428 signatures (WA Legislative Council Petition 2000a,b,c).

In May 2000, members of the GSGSTF publicly called for an interim ban on aerial spraying of plantations, citing health concerns (AA 2/5/2000:1,2). On the same day, South-West MLC97 Bob Thomas expressed concerns in the Advertiser that aerial spraying of plantations did not appear to be adequately policed:

Mr Thomas said while the Health Department was responsible for monitoring the use of agricultural chemicals, it did not seem to have anyone on the ground in the Great Southern making sure contractors complied with regulations. … (AA 2/5/2000:2)

Responses by the plantation sector to the escalating expression of concerns were initially similar to previous responses, focussing on information dissemination aimed at convincing the public of the safety of aerial spraying. For example, a representative from Integrated Tree Cropping (ITC) responded publicly to Mr Thomas’s comments, arguing that (AA 2/5/2000:2):

• incidents of spray drift were rare;
• there was no evidence spray drift had caused adverse health effects;
• only a small proportion of plantations were sprayed aerially each year; and
• that aerial spraying was commonly used in other agricultural industries.

However, the plantation sector soon shifted to developing additional responses to concerns. Key amongst these was the development of protocols to ensure spraying was undertaken responsibly, and considering the possibility of stopping use of particular

97 Member of the Legislative Assembly (of the Western Australian state government).
chemicals. The ITC representative cited above explained in the same media report that the tree farming industry had developed a ‘draft protocol for aerial spraying that was designed to give operators clear guidelines on how and where they could spray’ and that an industry group was considering a voluntary ban on the aerial spraying of dimethoate because there was ‘confusion about whether aerial spraying was a permitted use under the chemical’s registration.’ (AA 2/5/2000:2). However, while the protocol was developed, one company did not agree to sign on to the protocol, and representatives from other companies believed this diminished their ability to show their commitment to ensuring the safety and appropriate regulation of aerial spraying.

On May 23rd 2000, the State Government Health Department temporarily banned aerial spraying of dimethoate for three months due to confusion about whether the chemical’s registration allowed aerial spraying (Department of Health 2000a). In August 2000, the ban was extended for a further six months to February 28th 2001, to allow the National Registration Authority (NRA) to ‘consider label changes’ after the NRA clarified that it had not intended aerial spraying of eucalypts to be an approved application for pesticides containing dimethoates (Department of Health 2000b; AA 24/8/2000: 5).

However, although spraying of pesticides containing dimethoate was banned, aerial spraying with other chemicals continued to cause concern (see for example AA 26/10/2000: 1,2; AA 2/11/2000: 8; AA 16/11/2000: 2). Again, the plantation sector responded to these concerns by arguing aerial spraying was not causing the negative impacts feared by critics. A range of individuals and groups supporting the views of the plantation sector contacted the Advertiser to state that aerial spraying was being undertaken responsibly, including a landholder who owned a property which was aerially sprayed by a plantation company, Timber 2002, and of course members of the plantation sector (AA 2/11/2000: 2; AA 16/11/2000: 2).

At the same time, the plantation sector - with the exception of one company - was implementing the voluntary protocol developed for aerial spraying. This was not generally reported on in the media, but was discussed by several interview respondents. The protocol included clear guidelines on how aerial spraying contractors should operate, and on consulting about proposed aerial spraying, which included:
• Early notification of all neighbouring landholders about intentions to spray, with inclusion of information about how and why spraying was undertaken and the methods used to ensure spray drift did not occur;

• Encouraging neighbours to contact companies if they held any concerns about the planned spraying so these concerns could be discussed; and

• Negotiations with neighbours to change aspects of spraying to reduce potential for drift or other impacts.

These protocols were not generally reported in the media primarily because they mostly involved neighbour-scale interactions, and interaction between plantation managers and aerial spraying contractors, whereas the broader conflict was being enacted on a much larger scale. Within the plantation sector, some respondents reported that there was variability in the level of neighbour consultation undertaken before aerial spraying, despite improvements:

... from my experience it’s been so much easier to ring a neighbour ... the week before you’re going to spray and say OK, I’m gonna aerial spray, I’m gonna be spraying this [chemical], do you have any problems with it, OK what does the chemical do, what effects does it have, what do you plan to do about high winds or whatever ... Talk to them about that and they’ve said yep, thanks, no problems, carry on. ... Other timber companies – and this is part of the reason why the whole insecticide thing has blown up is that they’ve forgotten that – they’ve seen it as their God given right to do what they want when they want and they haven’t informed people of what they’re going to do, and that’s how it’s really blown – been blown out of all proportion ...

(Plantation industry respondent # GS3)

Information dissemination remained a key response to the concerns being raised in the media and other public forums by groups such as the GSGSTF and other community members. In November 2000, the Commercial Plantations WA branch of the Australian Forest Growers (AFG), which represented many of the plantation companies operating in the Great Southern, held a full-day community forum in Mt Barker. A range of speakers discussed the benefits of plantations, and answered questions and concerns raised by over 200 people who attended the forum. Aerial spraying was one of the concerns discussed (AA 21/11/2000: 7; AA 23/11/2000 p1,2). Members of the plantations industry published letters and were interviewed for reports in the Advertiser,
defending aerial spraying practices and also stating their belief that the plantation industry had been unfairly singled out for attention when aerial spraying of a number of agricultural crops was regularly undertaken in the region (AA 28/12/2000: 3).

If they see a plane nearby, the assumption is that it's the plantation sector spraying ... we get blamed and we have better protocols in place than most of the general ag sector ... (Plantation sector respondent # GS7)

Use of media and public forums was also still a key process through which concerns were being communicated by critics of aerial spraying. In December 2000, a community forum was organised in Mt Barker by the GSGSTF to discuss aerial spraying concerns. The forum was attended by around 150 people. Calls were made both for a moratorium on all aerial spraying of blue gums, and for a committee to be formed to discuss the issues raised at the forum (AA 7/12/2000: 1,2). MLA Monty House discussed possibly banning aerial spraying, and was criticised by members of the plantation industry for doing so (AA 28/12/2000: 3).

The calls made at the forum for establishment of a committee to examine aerial spraying issues were successful. In December 2000, the Blue Gum Aerial Spraying Consultative Group (CCG) was formed, and met from January 2001.

The CCG was formed of stakeholders from different rural industries, including the tourism, beef, plantation and viticulture industries, and also included representatives from relevant state government departments (AA 11/1/2001; Kelly 2001). Its mandate was to discuss the concerns that had been raised over aerial spraying, and develop recommendations to be submitted to the Agriculture Minister of the State government98.

In early 2001, concerns about aerial spraying of plantations continued to be reported in the Advertiser (e.g. AA 1/2/2001: 8; AA 8/2/2001: 8; AA 15/2/2001: 7). However, few concerns were reported in the media from March 2001 onwards.

In interviews, this was explained as resulting from a request that those involved in the CCG table concerns via the group, not through the media. This clearly led to a drop in reporting of concerns in the media.

98 For a detailed description of the membership of the CCG, and of the processes used and recommendations made by the CCG, see Kelly (2001).
However, reports of concern dropped outside the media as well. The number of complaints received about aerial spraying by at least one government agency dropped substantially in 2001 compared to 2000. This may have been a result of the lower media profile of the issue, but this is unlikely as the same agency reported high numbers of complaints about aerial spraying in 1999 prior to the issue being widely reported in the media.

Key changes that may explain the apparent reduction in concern, other than the formation of the CCG, were (a) the ongoing implementation of aerial spraying protocols by the sector, and (b) a sharp reduction in the areas of plantations aerially sprayed, reported by three plantation sector respondents. Two stated this was a direct response to community concerns, while the other said the reduction was a result of his company deciding that the damage caused by insects did not slow growth of plantations enough to warrant the expense of spraying. The aerial spraying that was undertaken may not have been as noticeable without the distinctive odour of dimethoate, which was no longer being used.

Although it was not the only factor affecting levels of conflict, the CCG played a key role in conflict over aerial spraying. Kelly (2001:3), reporting on the work of the CCG, stated that ‘one of the greatest benefits to emerge from the CCG process was the establishment of better communication links between the plantation industry and the community.’ This was agreed to be the case by all respondents interviewed who participated in or observed the CCG.

Interview respondents who were participants in the CCG all agreed that the CCG was effective in encouraging better communication between groups who participated in the CCG – and, particularly, improved relations between the individuals who were part of the CCG. However, two believed that most of the changes discussed at the CCG were already being implemented by the plantation sector, and that the CCG resulted in little or no change to on-ground practices.

99 The exact number of these respondents is not given here, nor the industry they worked in, to reduce potential for identification of respondents. However, CCG members interviewed came from multiple industries, not only the plantation sector.
Some participants reported that, while those directly involved in the CCG developed good relationships, this did not translate to improved relations in the broader community. In particular, while views of some CCG participants about aerial spraying may have changed, there did not appear to be a similar change in the views of the broader groups these participants belonged to. In fact, two respondents observed tension developing between some CCG participants and the groups they represented, resulting from the shift in views of the participants.

However, interactions started in the CCG did in some cases hold outside the group. A key example was development of improved relationships between the plantation and aquaculture sectors. This was reported to result both from the implementation of aerial spraying protocols and CCG discussions, with the plantation sector working to ensure spraying did not result in fish kills on aquaculture farms.

The Consultative Committee tabled a set of recommendations to the Agriculture Minister of the State Government early in 2001. The Minister subsequently endorsed most of the recommendations and gave qualified support to the rest. The recommendations included (AA 3/7/2001: 6; AA Extra 10/11/2001: 28; Kelly 2001):

- conducting a review of State legislation relevant to aerial spraying;
- adoption of a code of practice;
- making it mandatory for aerial sprayers to have Health Department licences; and
- conducting further research on the possible impacts of aerial spraying.

At the end of the period examined for this study, these recommendations had not yet been formally adopted, although many had been put in place voluntarily by the plantation sector, including the aerial spraying protocols which acted as a code of practice.

At the end of the study period, public reporting of aerial spraying concerns was still well below its 2000 peak, and plantation sector respondents and two neighbour landholders reported that the protocols in place were successfully addressing concerns about aerial spraying. However, critics of aerial spraying reported that they still held concerns about
aerial spraying and that they still held a goal of achieving a complete ban on aerial spraying.

5.7.3 Did positive change occur in the conflict?

Overall, there appeared to be successful change in conflict over aerial spraying at the neighbour level, with spaces provided in which concerns and disagreements could be expressed and acted on. Similar change was not apparent at a broader community level, and underlying differences in perceptions of risk and goals of different groups were not resolved for many involved in the conflict.

Outcome-based evaluation

A definite change in reporting of the issue in the Advertiser can be seen over time in Figure 5.8. The number of items reporting concerns over aerial spraying rose sharply and suddenly, from one item in 1997 and another in 1999 to 34 in 2000. The number of items reporting concern then dropped considerably in 2001 to four items.\(^\text{100}\)

\(^{100}\) Note that this number is the number of items expressing concerns about aerial spraying directly. Many of these items also expressed concerns about drinking water quality and health impacts.
This drop in reporting of concerns appears to have been related to a drop in actual concern. The *Advertiser* did not change its policies on reporting during this time. The CCG impacted on media reporting with the request that concerns not be discussed via the media. Once the CCG presented its recommendations, however, and this request no longer applied, media reporting did not increase substantially. Members of the GSGSTF interviewed for this study reported that they intentionally shifted to expressing their concerns through processes other than the media, partly as a result of a reduction in concern, although also because they felt the goals of their group could be attained using methods other than raising concerns in the media.

A drop in the number of complaints about aerial spraying to plantation companies and at least one government agency occurred, indicating at least a temporary reduction in public expressions of concern.

However, plantation sector respondents varied in their perceptions of whether levels of conflict had dropped. Some believed levels of concern had reduced considerably, while
others were uncertain, or believed little change had occurred despite fewer direct complaints occurring over aerial spraying.

From this evidence, it can be concluded that the level of conflict over aerial spraying was lower in 2001 than in 2000, although concerns clearly still existed.

**Process-based evaluation**

At the neighbour level, improved processes for notification about and planning of aerial spraying were implemented during the time studied. All plantation sector respondents agreed that this had reduced the level of neighbour concerns over aerial spraying. At a larger scale, the CCG opened considerable opportunities for dialogue between groups which were mostly viewed positively.

However, while reducing concerns held by neighbours and some groups, these processes did not necessarily influence the more general community anxiety over aerial spraying.

**Relationship-based evaluation**

Relationships improved between parties in the conflict in several cases. In particular, relations improved with some neighbours once improved consultation was implemented, while relations also improved between members of the CCG. However, there is no evidence of this improvement in relationship extending to the broader community.

**Transformation-based evaluation**

What were the underlying conflicts producing this dispute over aerial spraying? A key factor suggested by four interview respondents was different perceptions of the health and environmental risks posed by aerial spraying practices. Additionally, in three other interviews the concept of ‘acceptable risk’ was raised as a key source of conflict. This is related to ongoing debate over appropriate levels of risk that should be tolerated by society when modern technologies are used, and to the uncertainty felt over the risks of what are viewed as ‘unnatural’ practices such as application of chemicals. A divergence in perceptions of risk by members of the plantation sector and members of the general community is clear. This may partly be a result of the similar types of training of the foresters, who have undergraduate science degrees and tended to agree there was no
basis for concern over aerial spraying, whereas critics had a range of different
knowledge bases that did not lead to as uniform a conclusion.

In the case of some neighbours of plantations, there has been a noticeable reduction in
perceptions of the level of risk posed by plantation aerial spraying, indicating some
convergence in perceptions of risk has been achieved via the individual consultations
and early notification and information dissemination used. However, a similar
convergence of views was not apparent in the general community.

Goal-based evaluation

The goals of those expressing concerns about aerial spraying were to achieve a partial or
total ban on aerial spraying. These goals were partially achieved – aerial use of
dimethoates stopped, and a reduction in aerial spraying occurred. However, the goal
held by some of achieving a total ban on aerial spraying was not achieved.

The goals of the plantation sector were to achieve effective and economically viable
insect control in plantations without causing environmental harm. Both the economic
and environmental goals were emphasised by the plantation sector respondents
interviewed. These respondents tended to emphasise the difficulty of trying to use
alternative, often considerably more expensive, methods of insect control while also
producing profitable tree crops.

Overall, the goals of different groups at the extreme of the debate remained quite
divergent. The types of concerns expressed by different parties did not change
substantially over time, although four interview respondents who had held concerns
about aerial spraying did state they believed changes in practices – particularly a
reduction in the amount of aerial spraying undertaken – had reduced their concerns.
They all, however, stated they still held some concerns and wanted a complete ban on
aerial spraying.

5.7.4 Event history analysis

Figure 5.9 shows key events in this conflict. The EHA starts from the increase in aerial
spraying around 1999 and continuing into 2000, as this is the point all respondents
identified as the trigger of conflict, despite the existence of some previous concerns about use of chemicals.

The increase in area sprayed was followed by an increase in publicly reported concern over aerial spraying.

From this point it becomes difficult to disentangle events and relationships between them. Five distinct streams of events were identified:

- The development of protocols for aerial spraying, including ‘good neighbour’ consultation practices;
- A ban imposed on spraying of a particular chemical, dimethoate;
- Ongoing expression of concerns and response to concerns in the media;
- The establishment of the CCG and subsequent discussions between a wide range of stakeholders as part of the CCG; and
- A reduction in the area of plantations being aerially sprayed.

The outcomes – which included reduction in concerns at a neighbour level and from some groups – resulted from more than one of these five processes.

The banning of dimethoate spraying did not appear to significantly reduce publicly reported concerns, which related to aerial spraying in general as well as the use of dimethoate in particular. Therefore it is not depicted in Figure 5.9 as being causally related to later change in conflict.

The aerial spraying protocol improved neighbour-level relations, according to all plantation sector respondents interviewed, two landholders neighbouring plantations, and representatives of two other industry groups. It is therefore depicted as influencing the reduction in concern by neighbours and some other groups.

The ongoing expression of concerns and responses in the media did not demonstrably affect any outcomes, instead appearing to fall into a recurring feedback loop – although the media coverage did help trigger some of the other actions taken in the conflict, through giving the issues a high public profile.
The establishment of the CCG enabled improved relationships to be developed amongst a range of groups. Two plantation sector respondents, however, believed that the good relations established within the CCG did not necessarily spread to the general community, and that the perceptions of many outside the CCG remained negative.

The reduction in the area being aerially sprayed was the most important factor reducing the level of concern held by two respondents involved in campaigning against aerial spraying practices. One plantation sector respondent also argued that it was the reduction in spraying that had the most impact in reducing concerns about aerial spraying.

The EHA therefore points to multiple events affecting the trajectory of the conflict, rather than a single factor. The most important of these were implementation of changed practices and improved communication at a neighbour scale and at the regional scale in terms of relationships between key rural sector organisations and agencies.
Plantation sector develops draft protocol for aerial spraying

Increase in amount of aerial spraying of plantations (1999-2000)

Increase in complaints about aerial spraying: formation of GSGSTF; increasing media reports of concerns

Concerns expressed in media and to various groups on ongoing basis

Plantation sector responds by disseminating information via media and meetings on ongoing basis

GSGSTF calls for ban on aerial spraying of plantations

Aerial spraying of dimethoate banned - but concerns over aerial spraying continue

Ongoing implementation of spraying protocol by plantation sector

Reported reduction in level of concerns expressed by plantation neighbours

Reported reduction in concern from groups such as aquaculture farmers, government agencies

Some reduction in expression of concerns from general community although issue remains of concern

Community forum on aerial spraying held in Mt Barker

Community Consultative Group formed; discusses issues & recommends actions

Reduction in area aerially sprayed

Figure 5-9: Event history analysis of conflict over aerial spraying in the Great Southern
5.8 Conflict 5: Impacts of ‘whole farm plantations’

Concern has been expressed over the social impacts of large scale afforestation on rural communities since plantations were first established in the Great Southern. This conflict centres around concerns that large scale plantations, commonly called ‘whole-farm planting’ or ‘fence-to-fence planting’, may:

- result in loss of population from local areas because there is no need for a farmer to remain resident on the land. Where farm houses are rented out after a property is established to plantation, some concerns have been expressed that the new residents often don’t integrate well into the local community;
- result in loss of local services and infrastructure, as a result of loss of population and of continuous local economic activity, with plantations believed by critics to require less labour over time than traditional farming activities; and
- impact negatively on other industries in the region, particularly traditional agriculture and tourism.

This group of concerns is referred to from this point as ‘whole farm planting’ concerns.

Those who express whole-farm planting concerns generally call for establishment of ‘integrated plantations’ - plantations established on only part of a farming property, with most of the property remaining under traditional agricultural production - as a way of addressing concerns over whole-farm planting. Integrated plantings are preferred as they involve retention of the farming population in rural communities, whereas whole farm planting is believed by critics to lead to farming families leaving rural areas.

Conflict over the social impacts of whole farm plantations has been expressed both as a general concern not focussed on a particular plantation or site, and as a series of site-specific disputes in the region. Similar processes have been used to respond to both the general and the site specific concerns, and so they are discussed as a single conflict.
5.8.1 Information available on the conflict

A great deal of data was available on the issues forming part of this conflict. All but two interview respondents discussed concerns over whole farm planting in the region, as did a large number of media articles, and some local and State government documents. However, because of the widespread nature of the conflict, and the many ways it has been expressed and acted upon, it was not possible to detail all actions taken in different parts of the Great Southern to try to address the conflict – there were too many parallel events occurring.

Instead, common processes used to express and act on whole-farm planting concerns are discussed, along with specific examples of each typical process. This is followed by a case study of perhaps the most in-depth response to whole-farm planting concerns, the attempt by Plantagenet Shire Council to address concerns via changes to planning policy.

5.8.2 History of the conflict

Concerns over whole-farm planting began to be reported in the Advertiser in 1994, when both rural residents and then Primary Industries Minister Monty House expressed concerns (AA 20/9/1994: 1,4; 22/9/1994: 6; 2/2/1995: 11). These concerns continue to be expressed throughout the 1990s and to the end of the period studied. Three people interviewed believed that one of the reasons for the increase in concern from the mid-1990s was a shift away from afforestation of part of a farm under sharefarming arrangements to afforestation of entire properties leased or purchased by plantation companies. This shift was reported to have resulted from increases in the minimum area companies were willing to plant, and more farmers preferring to leave farming altogether as the region experienced a downturn in agricultural returns for key industries such as sheep grazing during the latter half of the 1990s.

However, there is evidence that this concern existed well before 1994. Several articles published in the *Advertiser* in the late 1980s and early 1990s, promoting sharefarming agreements with CALM and Bunnings Tree Farms, stated that one of the benefits of the sharefarming system was that properties were not purchased by the plantation companies, but remained under the management of the farmer. Some media articles also stated that a benefit of sharefarming was that plantations are not established over large areas of agricultural land (see for example *AA* 20/4/1993: 21). This clearly indicates awareness of concerns about whole-farm planting.

In addition, government inquiries on forestry recorded concerns over whole farm planting in both the Great Southern and other regions of WA. For example, concerns were documented in submissions to the Resource Assessment inquiry into forest and timber resources in 1990, in surveys conducted for the South West Region Comprehensive Regional Assessment process, and in development of some regional planning strategies (Government of Western Australia 1990: 38; Commonwealth of Australia 1998; SWDC 2000). There appears to be significant variation in the level of concern expressed about whole farm planting in different regions (WA Planning Commission 1999b; Tonts *et al.* 2001)\(^2\).

Concerns over whole-farm planting clearly have a long history, and were reported regularly in the *Advertiser* since 1994, with the number of reports peaking in 2000.

Interview respondents, when asked how concerns had been expressed, identified a number of communication 'spaces', i.e. places in which people could communicate their views, in which concerns were raised. These included concerns being raised by members of the rural community via formal and informal social and professional groups; through the media; and to local government.

When asked what actions and processes different groups had used to act on these concerns, the following actions were identified:

- on-ground policies implemented by plantation companies and agencies;

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\(^2\) See Appendix 5 for more detailed information about documentation of whole-farm planting concerns and variation in these concerns.
- information dissemination and discussions via media, meetings, and other processes;
- policy development at State and National level; and
- planning policies implemented by local governments.

**On-ground responses by the plantation sector**

All plantation sector respondents described a range of policies and practices used by their organisation to support local communities, including:

- implementing policies of purchasing goods and services in local areas (i.e. areas close to plantations) wherever possible;
- using local contractors and labour where possible;
- financial support and membership of local clubs and volunteer organisations;
- encouraging subdivision of properties to allow farmers to remain living on their property after it was sold to a plantation company; and
- maintaining and renting houses on plantation properties where farmers had left the property.

These efforts appeared common from at least the mid to late 1990s and possibly earlier, and continued to the end of the case study period.

One of the most commonly discussed responses to concerns about population decline was renting houses on plantation properties, rather than demolishing buildings when a farm was purchased and planted. All plantation respondents reported that their company/agency rented houses, except where houses were considered unliveable.

However, three local government and rural community residents interviewed, as well as one plantation sector respondent, believed that the new residents renting houses often did not integrate well into the local community. In particular, respondents reported that the renters often did not join local groups or participate in local activities, and so renting did not address concerns about rural decline. More broadly, the introduction of new residents did not compensate for the dislocation felt by those who had watched friends leave the area:
... they go to the pub and Fred next door, or Bob up the road, has just sold and gone, and so he hasn’t got his little group of people that he sees all the time. Instead of that he’s got Steve or Tom and so and such who are forestry people, or vineyard people, and the really interesting thing is that those [new] people are not welcomed. They say we’re taking people out of the community, but they won’t let those people be part of the community. (Plantation industry respondent # GS2)

Renting also created management difficulties for plantation companies, who had to become landlords when that was not an objective of their business, and sometimes found it difficult to obtain reliable tenants for houses located on their properties.

Some plantation companies also put in place policies of employing local residents wherever possible, but they found that their definition of ‘local’ was different to that of the residents of some rural communities:

... we can say ‘yes, we employ that many people’ who are all – they’re locals, as far as we’re concerned local means you’re you know in Albany or Mt Barker or Narrikup or whatever, but now they’ve got it down to such a situation they’ll say Narrikup – which has one store, no petrol station, no hotel, nothing – [they’ll say] you’re not employing the Narrikup people, you’re employing the Mt Barker people. Now it’s only about 15 kilometres from Narrikup to Mt Barker. (Plantation industry respondent # GS2)

These differences meant that often members of small rural communities did not feel the responses being implemented were effectively addressing their concerns.

**Information dissemination and forums**

Various communication processes have been used to express and respond to this conflict. In general, these processes have taken the form of concerns being raised at a range of venues and through the media, followed by ‘one-off’ responses such as media articles and information dissemination, or meetings and forums held to discuss issues.

Concerns have been raised on a relatively regular basis in the local media, as can be seen from the number of articles reporting on whole-farm planting concerns in the *Advertiser* in Figure 5.10.
General social impacts
Loss of population
Use of 'good' agricultural land
Loss of services and facilities
Whole-farm planting - general

Figure 5-10: Number of articles and letters in the Albany Advertiser reporting concerns related to conflict over whole-farm planting in the Great Southern

The media reports tend to follow a cycle of concerns being raised, followed by responses from the plantation sector. This cycle was observed several times. For example, in 1994 when items reporting concerns about whole-farm planting and related concerns first appeared, members of the plantation industry responded to concerns by arguing that leasing options allowed farmers to stay on their properties (AA 4/10/1994: 5). Similar cycles occurred in 1997 and 1998:

Farmers, consultants and businesses are warning of the potentially devastating social and economic consequences of whole-farm tree planting in the region. (AA 27/5/1997: 1,2)

The farm forestry industry has hit back at critics. ... Trees were being seen as a salvation to insurmountable salinity problems because they reduced the watertable ... Also, the new industry gave many farmers, who were wanting to retire and leave their properties, an alternative income. (AA 10/6/1997: 5)

Tree farming could not be blamed for the rural decline and was merely a symptom of the current economic pressures on farmers, according to Bunnings Treefarms operations manager ... Mr Breidahl’s comments follow claims by Wellstead farmer and former Shire councillor Ian West that tree cropping had led to a rural decline in the Albany Shire with more farmers turning their land over to trees and moving away ... (AA 16/04/1998: 4)
Local residents must question the impact of large-scale tree farming in the region, according to Great Southern Development Commission chief executive Peter Cook. Mr Cook highlighted community concerns about the industry in an address to an Albany Chamber of Commerce dinner meeting ... (AA 1/12/1998: 3)

I have heard Ian Peacock and others criticising comments made by Peter Cook (GSDC) on the subject of the tree plantation industry in this region ... It has long been the policy of the Albany Zone of WAFF (supported by the State General Council) that tree farming integrated with conventional farming and grazing land had much merit and little downside, whereas “whole farm” or “horizon to horizon” plantings of single species of trees, has many disadvantages (both social and commercial) ... (AA 10/12/1998: 6, letter to editor from Graham Davies, President Albany Zone WA Farmers Federation)

Graham Davies from the WAFF raised some important issues ... In many instances, farmers are turning to timber production as a second choice and would much prefer to continue with other traditional agricultural pursuits. The problem is that commodity prices are simply too low to enable farmers to make a reasonable living ... The plantation industry is unique in that it provides farmers with sustainable, environmentally friendly options which will create real jobs in rural areas well into the next century including for their own families ... The fact that there are increasing numbers of “whole farm” plantings is because farmers are not encompassing treefarming as a viable part of their business, instead they are selling out ... (AA 31/12/1997: 7 Letter to editor from Tim Browning, Land and projects general manager for Timberecorp)

Similar cycles of media reporting to that evident from the quotes provided above were repeated several times over the years in the Advertiser. Respondents reported similar exchanges occurring in other settings, such as social occasions, community group meetings, and public meetings and forums.

Another common response from the plantation industry was to emphasise that plantations were providing a way for farmers who were struggling to leave the land ‘with dignity’:

... we're in a rural community which is in serious decline ... to have the blue gum industries come along at a time when agriculture is well and truly depressed and a lot of farmers wanted to get out anyway ... it's given farmers an opportunity to get out with a lot of dignity. (Plantation industry respondent # GS1)

What was perhaps common to these processes was that only a 'one-off' opportunity was provided for concerns to be expressed, and these processes were not linked to clear
flow-on actions. For example, a community forum was held in Mt Barker in 1999 so the community could voice a range of concerns, including concerns about whole farm plantations, to National Party politicians (AA 23/11/1999: 6); this did not lead to action on whole-farm planting issues. The Commercial Plantations WA branch of the AFG held a full-day community forum in Mt Barker in November 2000 to respond to concerns expressed about plantations, including concerns about whole farm planting, and to communicate the benefits of plantations – but this forum was again not linked to ongoing processes of communication between groups or development of shared solutions to the concerns (AA 21/11/2000: 7; AA 23/11/2000: 1, 2; Giblett 2001). In 2001, the plantation industry tried a new form of information dissemination, releasing a free audio program that aimed to debunk the ‘myths and misconceptions surrounding the blue gum industry’, including concerns about whole farm planting (AA 8/9/2001: 3).

In general, then, the media and public meetings and forum were used to achieve an exchange of views – but not to achieve ongoing dialogue between groups.

State government strategies and policies

Several State government processes have attempted to address issues relevant to whole-farm planting concerns. All have been limited in their ability to address these issues. The examples discussed here highlight how difficult it is to address whole-farm issues via these types of processes.

In 1995, a nine member farm forestry taskforce was created, chaired by Alex Campbell of the WA Farmers Federation (WAFF). The taskforce was established by the state government to identify ways of improving coordination between government and private agencies involved in tree farming on private land, and to identify strategies to help the industry reach its full potential. In August 1995, public meetings held for the taskforce revealed concerns about whole farm planting, and also wide support for integrated tree plantings on farms.

The taskforce recommended several actions in 1996 to help develop the WA farm forestry industry, including developing appropriate planning guidelines for the industry, but the scope of activities it was established to examine meant it could go no further to

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address the whole farm planting concerns that had been raised (AA 27/7/1995:4; 22/8/1995: 19; 6/2/1996: 16).

In 1997 the national policy initiative titled the 2020 Vision for Plantations in Australia was launched, setting a goal of trebling Australia’s 1997 plantation estate by the year 2020. The vision was developed by the Commonwealth, State and Territory Governments and the plantation growing and processing industries. The vision committed the organizations that developed it to creating a regulatory, cultural and economic environment conducive to the expansion of plantations in Australia (Plantation 2020 Vision Implementation Committee 1997). It did not include scope to explicitly address concerns over social impacts of plantations, and was not developed in consultation with local government or rural communities about the possible social impacts of large scale plantations. A review of the Vision in 2002 led to explicit inclusion of goals of achieving sustainable social outcomes, which may provide more space for using the Vision to discuss and set directions on addressing concerns over whole farm planting.

In 1997, the WA Planning Commission released the State Planning Strategy. The Strategy identifies the need to ensure that in appropriate areas, regional strategies, statutory plans and rural strategies, should identify suitable land for farm forestry and that the benefits of farm forestry be promoted amongst the rural community (WA Planning Commission 1999a). Again, the Strategy did not directly address concerns about social impacts of large scale plantations. When interview respondents were asked why this was the case, four identified the same reason – that there are few if any precedents in WA, or even Australia as a whole, in which it has been considered acceptable to dictate rural land use based on social and economic impacts of particular activities, while many precedents uphold the importance of freedom of choice of land use for private land owners103.

The strong belief in freedom of land use choice was clearly evident in the response to a call made in May 2000 by Barry Court, the president of the Pastoralists and Graziers

103 Although it is widely accepted that regulations may be imposed on land uses for environmental reasons.
Association. Mr Court called for investment tax concessions to be directed so they were targeted at activities that would reduce salinity problems, and not to ‘investment corporations [that have been] ... leasing or buying up thousands of hectares of our prime, salt-free farming land to plant Tasmanian bluegums for woodchips’ (Ladyman 2000: 9). A range of groups criticised his suggestion that the government intervene to direct land use, with many firmly believing that ‘market signals should be able to prevail rather [than] the fate of one industry being decided over another by special treatment’ (Ladyman 2000: 9).

This demonstrates why most policy, legislation and regulation does not directly address concerns over impacts of whole farm planting – any response would require dictating the types of land uses permitted on privately owned land, and this would be unacceptable not only to the plantation sector, but to many private land owners in rural areas.

The only exception to this general rule occurs at the local government level, discussed below.

**Local government planning policy**

In WA, plantation companies have usually applied to local government authorities for approval to establish new plantations. According to three plantation sector respondents, applications were made in many cases even where plantations were zoned a ‘permitted’ land use. Local governments may or may not approve proposed plantations, and may impose conditions that have to be met for the afforestation to proceed. Interview respondents from four different companies expressed dissatisfaction with this process, believing plantations should fall under the ‘rural permitted’ category of land uses, under which they would not require approval from local government.

If a local government makes a decision a plantation company feels is unfair, the company can appeal the decision. WA’s planning appeals system allows appeals to be made either to the Town Planning Appeal Tribunal or to the Minister for Planning.

In 1999, the WA Planning Commission prepared a draft policy for farm forestry in Western Australia. This policy had not been endorsed by the end of the period studied, due to a series of delays and a change of government.
The draft policy aimed to provide guidance to local governments considering implementing policies or planning scheme changes relating to plantations. It describes key planning issues associated with plantations, which it refers to as farm forestry, and makes recommendations for addressing plantation proposals in planning schemes (WA Planning Commission 1999a). It notes that there are other planning issues including the visual impact of plantations, ‘the potential social impacts arising from changing employment patterns’ and ‘concern over the potential loss of prime agricultural land to plantations.’ (WA Planning Commission 1999a). This therefore is one of the few examples of a policy directly discussing and attempting to address whole-farm planting issues.

The draft includes a series of recommendations about how local government can zone plantations to achieve an appropriate balance of land uses, and to ensure plantations are not established on some types of land where it is believed negative impacts would result. These include making plantations a permitted use in the Rural, General Farming or similar zones, while providing for plantations to be listed as a discretionary use in some Rural zones, and in some circumstances to be listed as not permitted ‘where it can be demonstrated that farm forestry would be contrary to the purpose and intent of the zone (for example, in prime horticultural areas).’ The draft recommended these limited restrictions primarily where plantations were believed to potentially have a negative impact on other industries such as tourism, or where other industries were preferred.

The draft was developed largely in response to actions taken by many local governments to address concerns over the social impacts of plantations.

By 2000, planning policies on plantations had been developed by the Shire of Donnybrook Balingup (outside the Great Southern but nearby), the Shire of Denmark, and Jerramungup Shire, and Plantagenet Shire Council had tabled a draft policy (AA 11/5/2000:3; Sharp 2000). The content of the policies varied, but had some common themes. For example, the Denmark and Plantagenet policies specified that plantations could not impact on visual amenity on specific routes, in an attempt to reduce potential

\[104\] The policy defines farm forestry broadly as ‘any commercial tree production on farmland’. This definition is broadly consistent with the definition of ‘plantation’ used in this thesis.
impact on the tourism industry. Both of these policies also specified a preference for integrated plantations rather than whole farm plantations, as a way of reducing the social impact of plantations. Various specific establishment/management practice issues were also addressed, many of which were already covered in the Code of Practice for Timber Plantations in WA.

These policies represent the strongest attempt made to address whole-farm planting concerns. However, it was not possible to document the development and implementation of each local government's plantation planning policy. Instead, one example is documented here: the development of proposed amendments to Plantagenet Shire's planning scheme. This example highlights the key issues faced when using local government planning policies to try to address concerns.

The Shire of Plantagenet is one of the three Shires in the Great Southern in which most plantation expansion took place during the 1990s. The area of plantations established in the Shire increased from 2,580ha in 1991 to 44,675ha in 2001 (Schirmer et al. 2005). As such, the Plantagenet Shire Council (PSC) has received a large number of applications to establish plantations.

The PSC placed a range of conditions on the establishment of some of these plantations. Plantation companies lodged appeals against some of these decisions, feeling they imposed unnecessary restrictions that in some cases reduced economic viability of the planned plantation. The issues became more heated in the late 1990s as planting rates increased, coming to a head in 2000 as companies tried to establish a larger than planned area of plantation as a result of the changes to taxation provisions discussed earlier, and the PSC tabled a draft policy on plantations in early 2000 and called for submissions. By April 2000, over 100 submissions had been received (AA Weekend Extra 25-27/2/2000:3; AA 18/4/2000: 4). Two plantation sector respondents reported that in 2000 the PSC began to place more restrictions on plantations than they had previously.

For example, in May 2000, Timbercorp Treefarms announced it would lodge four appeals against conditions placed on tree farms by the PSC. In June 2000, Great Southern Plantations (GSP) lodged an appeal against PSC's refusal to grant planning consent to a plantation; the application had been rejected on the basis that the plantation
was to be placed near a bed and breakfast and a hydroponics farm and the PSC believed it might negatively impact on these operations \((AA \ 20/6/2000:11)\). By July 2000, the PSC was reported to be facing around 15 appeals by various plantation companies against limitations placed on proposed plantations \((AA \ 27/7/2000:5)\).

At the same time, the PSC was facing concerns from residents in Rocky Gully over a plantation it had approved. In June 2000, a petition was lodged with the PSC requesting the planning approval given for an Australian Plantation Timber (APT) plantation falling within a 1km radius of the townsite of Rocky Gully be revoked \((AA \ 27/6/2000:11)\). The proposal had been approved even though the Code of Practice for Timber Plantations recommends plantations not be established within 1km of townsites.

A public meeting was held in Rocky Gully in late July to allow concerned residents to discuss their concerns with APT. Despite the concerns of some residents, as planning approval had been given, planting was started on the property by APT.

As well as facing concern from both the plantation industry and from rural residents about their decisions, there was disagreement within the council about whether to allow some plantations. In July, a proposal for a West Australian Forest Management plantation, part of which would have fallen within 1km of the townsite of Narrikup, was not approved after the PSC became deadlocked over whether to grant planning permission \((AA \ 11/7/2000:6; AA \ 1/8/2000:13)\).

In early 2001, the Planning Minister of the State government overrode PSC’s decision to refuse planning permission to the proposed GSP plantation to be located near the hydroponics farm and bed and breakfast \((AA \ 6/2/2001:3)\). This was a common occurrence, according to one plantation sector interviewee:

... any appeal that has ever gone to the Minister has never been rejected, so you’ve got this funny structure where you go and put them [planning applications] in and local government will try and wield the big stick, but at the end of the day you just say well, I’ll go to the Minister, and they know that they’ll lose. (Plantation industry respondent # GS3)

Soon after this, GSP stated that, despite winning its appeal, they would not go ahead with the plantation, due to the community concerns expressed. GSP also confirmed it would continue to apply to PSC for approval before establishing plantations but would
like more certainty about where plantations may and may not be established (AA Extra 16-18/3/2001:1,3). The PSC at the same time reaffirmed that it would continue to require plantation companies to apply for planning permission before establishing plantations, despite the over-ruling of their decision on the GSP plantation (AA 13/3/2001:7).

In early 2001, the PSC began to plan amendments to its planning scheme that 'would allow agroforestry in rural zones without council approval but not plantation forestry' (AA 13/3/2001:7). The goal was to encourage integrated plantations, which were widely perceived to result in more positive social impacts than whole farm plantations.

The PSC proposed changing the land use status of plantations to the ‘AA’ land use category, under which it would have power to refuse permission for plantation establishment (AA 28/8/2001:5).

The proposed amendments created considerable debate in the community. Most of this debate centred on this key issue of whether the PSC should have the right to refuse particular land uses or not. The public interest in the issue was so great that the advertising period of the proposed amendments, which began on 21st March 2001, was extended from May 2nd 2001 to May 31st 2001, a copy of the proposed amendment was sent to all broad acre farmers (defined as those farming more than 40 acres) in the Shire, and a ‘public information night’ was held to explain the purpose of the proposed amendments (PSC 2002: 25).

At the public information night on May 15th, the proposed amendments to the PSC planning scheme were explained. A range of groups expressed support for and concerns about the amendments:

About 150 people attended a public meeting to examine a proposed town planning scheme amendment of tree-farming and agroforestry practices … three main opinions about the proposal were aired at the meeting. The pro-plantation lobby was concerned that land prices might fall if the proposal was successful, and landowners might lose the right to do things they were presently allowed without seeking council’s permission. Farmers expressed their concern they could be denied the right to plant tree-crops. Smaller property owners such as bed and breakfast operators, organic farmers and small lot, lifestyle farmers … thought the proposal should be pushed through quickly to protect the region’s natural assets. (AA 22/5/2001:6)
By July 153 submissions on the proposed amendments had been received, with the period for analysing submissions extended due to the large number received (AA 17th July 2001 p7). When the submission period finally closed, 60% of public submissions were opposed to the proposed amendments, 40% supported the amendments (although only 15% supported the amendment without modifications, while most called for some amendments) and one submission was neutral (PSC 2002: 28).

Of the objections:

Approximately 25% of all submissions objecting to the Amendment stated that plantation tree farms must remain as a ‘P’ use … with no restrictions adjacent to town boundaries or areas of special interest. … A further 8% of submissions disagreed with the Amendment stating that plantations should remain as a ‘P’ use and landowners should not require approval for the growing of crops or have other restrictions placed upon them. (PSC 2002: 25)

The key concerns expressed commonly related to the impact the amendments would impose on private landowner’s control over their land.

In March 2002, the PSC made its final decision on amendments to its planning scheme. Under the amendments, plantations have been placed in the same use category as general farming pursuits in all areas except two: buffer zones around towns, and special control areas where specific conditions apply. In these special control areas and in buffer zones, plantation proposals must be approved by council before they can go ahead. The amendment had yet to be approved by the WA Planning Commission at the end of the period studied (AA 5/3/2002:5).

The ongoing debate and concerns about the extent to which the PSC should have power to refuse plantations – and hence to impact a private landowner’s right to choose how they use their land – led to major change in the scope of the proposed amendments. At the start of the process, the PSC’s goal was to encourage integrated plantings and change the status of plantations from a permitted land use to one requiring local government permission. By the end of the process, the amendment had been substantially changed so that planning permission would only be required for plantations in a small number of specific areas.
5.8.3 Did positive change occur in the conflict?

Overall, there is no evidence that the conflict changed successfully in any dimension, apart from a drop in media reporting of concerns in 2001, which many interviewees believed was not accompanied by a drop in concerns held by members of the rural community. No interview respondents believed the conflict had changed in a positive way over time, although two believed levels of concerns would drop in the future as the plantation estate reached an area sufficient to support processing facilities, and few new plantations were established in the region.

Outcome-based evaluation

The amount of reporting of whole farm planting concerns in the media varied over time, reaching a peaking in 2000 and subsequently falling. In general, concerns appeared to be expressed more frequently in the media in years where higher levels of afforestation occurred, as can be seen in Figure 5.10 above.

While three plantation sector respondents believed concerns fell in 2001 as a result of lower levels of afforestation in the region, three farming and local government sector respondents disagreed, believing levels of concern remained high even though they were not reported as frequently in the local media. Others reported no change in the intensity of concerns.

Process-based evaluation

Considerable communication about whole farm planting concerns occurred between groups through a variety of forums, but did not result in outcomes that resolved the issues. None of the processes used allowed ongoing discussion of issues by a range of groups. In general, they took the form of a ‘one-off’ meeting or forum. In the case of local government planning policies, the different groups did not communicate directly with each other, but rather via submissions to local government who then decided on the actions to be taken. Policy processes at State and Commonwealth level have provided very little space even to discuss concerns over whole farm planting, let alone act on them.
Discussion of whole-farm planting concerns in different forums was not generally followed by particular actions to change practices, or by reduction in publicly expressed concerns. The processes used, therefore, did not result in any positive change in conflict.

**Relationship-based evaluation**

Relationships between groups criticising whole farm planting and the plantation sector did not appear to improve when it came to the issue of whole farm planting, nor did they worsen considerably, although concerns appeared to be expressed more frequently in years where higher levels of afforestation occurred.

**Transformation-based evaluation**

When asked what was ultimately driving this conflict, interview respondents identified two underlying processes:

- Increasing mechanisation and productivity in agriculture leading to lower labour requirements and out-migration from rural areas, in an ongoing process often referred to as ‘rural decline’ and involving many farmers selling their properties, leading to land becoming available for purchase by the plantation sector; and

- The economic realities faced by the plantation sector, which make larger-scale plantings more economic than smaller-scale, integrated plantings.

Rural decline has been ongoing in the region, and has created considerable social pressures for many rural communities, which face a situation of declining services and ongoing loss of population. The establishment of plantations is seen as a cause of this change, although plantation sector respondents all emphasised their belief that plantation expansion was a response to the pressures that were causing farmers to leave the land, not a cause.

Neither the problem of rural decline, nor the constraints placed on plantation sector companies by the realities of the markets into which they plan to sell wood products, changed during the period studied.
Goal-based evaluation

The goals of those critical of whole-farm planting were to achieve forms of tree planting perceived as less damaging to rural social infrastructure – particularly ‘integrated’ planting in which farmers stayed on their properties. This goal was not demonstrably achieved, with plantation sector respondents reporting that often farmers preferred to sell rather than lease land for afforestation.

The goals of the plantation sector were to achieve an economically viable scale of planting without adverse impacts. Plantation sector respondents described difficulties making the changes asked for by critics – undertaking smaller scale, integrated afforestation – while still staying economically viable, and also found many farmers preferred not to undertake this smaller scale type of afforestation.

5.8.4 Event history analysis

As illustrated in Figure 5.11, the pattern of events in this conflict was largely a result of the presence of a range of social and economic conditions, the interaction of which acted to produce both the impetus for whole-farm planting, and high levels of concern over changing social conditions in rural areas.

These broader socio-economic conditions were the various pressures unrelated to afforestation in the region that acted to shape how and where it occurred. Many rural areas of WA experienced declining populations and farm amalgamation during the 1990s, as farmers were forced to ‘get big or get out’, and increasing mechanisation and efficiency meant that less labour was required to produce the same volumes of agricultural output. Falling commodity prices and rising costs of agricultural inputs drove many farmers to sell their properties.

At the same time, afforestation companies faced a similar situation in which the wood products they produced would have to compete on international markets, and hence needed to be grown at as low a cost as possible. This could be best achieved by planting larger single plantations, for which fixed costs of planning were lower and hence a lower per unit cost achieved of growing trees.
This combined with a long standing tradition of private land ownership in Australia in which private landholders strongly believe in their right to choose how they use their land, within appropriate environmental constraints.

Finally, many farmers chose not to afforest part of their property even where the option was made available, for reasons including a concern that this may create difficulties for later selling the property if they decided to leave farming – a concern that was very real given the pressures being faced by many farmers.

All these factors played a role in encouraging the use of whole-farm planting to afforest agricultural land in the region.

However, the ongoing rural decline already occurring, combined with visible evidence of new plantations being established, led to concerns that afforestation was increasing loss of population and problems of rural decline.

While this concern was responded to with information dissemination via a range of forums, with implementation of strategies by plantation companies to support local communities, and with policies aimed at reducing impacts, none of these acted to change levels of concern. In the case of attempts to prescribe either preferred types of afforestation or locations of plantations by local government, the proposals studied were reduced significantly in scope before being implemented, although some changes were made.

The only change associated with changes in the intensity of conflict was the rate of afforestation – concerns appeared to be lower when less afforestation was occurring.
Pressures to achieve economies of scale to reduce unit costs of producing plantation wood, to be competitive on international markets

Plantation companies offer leasing options, but many landholders prefer to sell their properties, or to lease the entire property rather than part of it

Removal of trade barriers and changing markets create pressures on farmers to 'get big or get out'; population of many rural areas declines

Private property rights enshrined in both law and custom which are strongly associated with a belief in the freedom to choose how land will be used

Much afforestation takes the form of 'whole farm' planting

Ongoing expression of concerns about social impacts of 'whole farm' planting. Calls for smaller scale afforestation integrated into farming enterprises.

Information dissemination in the media, public meetings and forums

Policies implemented by plantation companies to increase their involvement in local communities in a range of ways

Rate of afforestation slows

Some reduction in level of publicly expressed concern

Concern expressed by range of landholders about the appropriateness of imposing controls on how privately owned land may be used

Changes made do not include restrictions that would shift afforestation to smaller-scale integrated plantings

Changes proposed or made to local government planning policy/planning schemes

Figure 5-11: Event history analysis of conflict over whole-farm planting in the Great Southern
5.9 Conflict 6: Siting the APEC woodchip mill

This conflict centred on concerns about the proposed site for a woodchip mill to be built by the Albany Plantation Export Company (APEC). While the concerns about siting of the mill related both to concerns about road transport of woodchips to the Albany port and concerns about the environmental impacts of the proposed mill, only the latter part of the issues are discussed here as a unique conflict. This is because the roading issues were related both to the mill siting and to general concerns over transport of woodchips, and were acted on using different processes. They are therefore discussed as a separate conflict. The two issues were highly interlinked, however, sharing many of the same actors and processes.

5.9.1 Information available on the conflict

Information on the conflict was drawn from two sources: media reports in the Advertiser, and interviews with four people who observed or were involved with the process of siting the mill. Of these, only one interview respondent had expressed concerns about the siting of the mill, while all others were involved in arguing for the mill site. This had the potential to bias the analysis, but the high level of reporting of concerns in the Advertiser, which respondents believed was relatively accurate, meant that different perspectives in the conflict could be represented accurately. The short-lived nature of the issue meant only a finite set of events and issues had to be uncovered, and so it is possible to be confident that key public events of the conflict were identified.

5.9.2 History of the conflict

At several points in time, proposals have been made to establish wood processing facilities, including woodchip mills, in the Great Southern region\textsuperscript{105}.

In the late 1990s, a new woodchip mill project was proposed for Albany which was to use only plantation sourced timber, sourced from the blue gum plantations established in the Great Southern.

\textsuperscript{105} Early proposals in the late 1980s and early 1990s attracted conflict primarily because they involved using wood sourced from native forests to feed the proposed mill. They were therefore quite separate conflicts to that discussed here, which involved a proposed mill utilising only plantation-grown wood.
By the late 1990s, the earliest blue gum plantations established in the region were almost ready for harvest. Plans were made for the processing and export of woodchip from the plantations. Construction of woodchip berths began at Albany Port, and infrastructure developments were increasingly discussed by a range of groups including the Albany Port Authority, the Albany City Council (ACC) and others, and reported in the local media (e.g. AA 25/2/1997:8).

Public calls were made in the late 1990s for a commitment to invest in a woodchip mill to process the maturing bluegum resource. Plans to invest in such a mill by the Oji Paper and Itochu Corporation, the owners of APFL, were welcomed in media reports and, according to interviewees, by stakeholders including the plantation sector and key members of the Albany business community and local government.

Through 1997 and 1998, public reporting of the issue focussed on reporting that feasibility studies were being carried out into developing a woodchip mill (e.g. AA 13/11/1997:1), and welcoming proposals for the mill (AA 03/02/1998:1-2).

In May 1998, it was announced that a site on Down Rd – several kilometres north of Albany, near the Albany airport – was being seriously considered by Oji Paper Company and Itochu Corporation for their proposed mill (AA 7/5/1998:4).

The first public reports of negative sentiments about the proposed site occurred in late 1998 (AA 5/11/1998:1). According to three interview respondents, these public concerns followed ongoing expression of concern by local government and others about the potential impacts of the mill.

In 1999, applications for approval of the proposed site were submitted to relevant authorities. It was at this point that public debate over the proposed mill site began in earnest.

The concerns raised about the proposed site related to the level of environmental impact assessment undertaken of the proposal, and concerns over how woodchips would be transported from the mill to Albany port for export (see AA 23/2/1999:5; AA 4/3/1999:6; AA 20/5/1999:3 [all three articles], AA 27/5/1999:5 [all three articles], AA 20/7/1999:3; AA 3/8/1999: 1). These formed two separate but very inter-related conflicts.
Groups expressing concerns over the proposed location of the woodchip mill included the Ring Road Residents Group\textsuperscript{106}, local residents, some ENGOs and the ACC.

In April 1999, several local residents and ACC members published an advertisement in the \textit{Advertiser} calling for more examination of roading issues and expressing concerns about the proposed woodchip mill location at Down Road (\textit{AA} 22/04/1999: 3).

In May 1999 the ACC was asked to indicate whether they would approve the proposed mill location. They were given little time to decide on their views, being asked to provide a response to the State government on short notice:

\begin{quote}
The Albany City councillor who moved the motion to support a woodchip mill at the Down Road last week now says he should not have done so … Cr Evans asked if the council could defer its decision, but was told the Department of Resources needed a response urgently … He said it was likely that some councillors had not even had the opportunity to read the two-page report before voting and would have liked the council to have visited the proposed site. (\textit{AA} 20/05/1999: 3 Article 2 ‘Councillor regrets move’)
\end{quote}

A public meeting was held in Albany to discuss the proposed site on Monday May 24\textsuperscript{th} 1999, at which it was urged that other sites also be considered.

However, the State Resource Minister, Colin Barnett, reportedly stated that his discussions with the proponents of the mill ‘cemented his belief that the site for the mill at Down Road was the most appropriate one and the Government must now await final Cabinet approval.’ (\textit{AA} 27/5/1999: 5). In July 1999, the State Cabinet announced its support for the Down Road site (\textit{AA} 20/07/1999:1,3). The support was ‘subject to final feasibility studies and environmental planning requirements’ (\textit{AA} 23/09/1999:1,2).

The Albany Community Regional Development Alliance (ACRDA) formed in August 1999, following concerns expressed by a range of people including South-West MLC Dr Christine Sharp about the development of the woodchip industry (\textit{AA} 23/09/1999:1,2). While many of the concerns related to the way woodchips would be

\textsuperscript{106} A local community group formed to voice and act on concerns about a proposed ring road to be developed in Albany, discussed further in relation to their participation in debates over transport of woodchips to the port of Albany.
transported, they also included concern over environmental impacts of building the mill on the proposed site.

In December 1999, a two-day public display of detailed plans of the proposed mill was held in Albany, and public submissions were encouraged to the consultants who would be making recommendations to the Environmental Protection Authority (EPA) on the required level of environmental impact assessment needed for the site (AA 16/12/1999:3).

In March 2000, the boards of Oji and Itochu Corporation announced that they had approved the mill project, following the approval of the State government for the proposed site, and that they had formed the Albany Plantation Export Company (APEC) to support it. The WA Resources Development Minister supported the announcement (AA 21/3/2000:1).

On April 8, the Department of Environmental Protection advertised that the proposed mill would be subject to what was referred to in the Advertiser as an 'informal review' of environmental impacts, as the proposed project was considered to involve manageable environmental risk.

The proposed level of assessment sparked concerns from a range of groups, many of whom supported the project overall but believed an informal review would not provide the level of detail needed to assess and address environmental issues arising from the development.

Several appeals were lodged against the proposed level of assessment (AA 20/04/2000: 1,2). Objectors included the ACC, South-West Greens, WA Conservation Council, Albany Environment Group and Denmark Environment Centre (AA 20/04/2000: 1,2). The ACC’s appeal was submitted with the condition that it would be withdrawn if councillors voted against it at their next council meeting on May 2 (AA 27/04/2000: 1).

Albany’s business bodies, including the Port Authority and Chamber of Commerce and Industry, called for the ACC to withdraw its appeal. They publicly called the council’s appeal ‘disappointing and embarrassing’ (AA 27/04/2000:1,2; AA 4/5/2000:1,2). The mill’s proponents argued that they had met strict environmental requirements in their
planning and development processes, and expressed concern that the objections jeopardised development of the mill and would delay the first shipments of woodchips (AA 27/4/2000;1,2):

Mr George said Oji Paper and Itochu Corporation had “gone to enormous lengths” to address potential impacts and to allay environmental concerns. The project had been through an exhaustive public consultation process and Oji and Itochu’s consultants had prepared an extensive environmental management plan. A 250-page public document detailing the project plan was in the public domain. ... Mr George said environmental management commitments in the project proposal would be binding and had been sufficient to satisfy the “State’s leading environmental experts” – the EPA. (AA 20/05/2000: 3)

In early May the ACC withdrew its appeal against the proposal level of assessment (AA 27/04/2000;1,2; AA 4/5/2000;1,2). Oji and the ACC then released a joint statement supporting the mill, in which Oji representatives publicly stated that they understood the ACC’s ‘cautionary approach’ and that they would try to act on the concerns raised (AA 9/5/2000:1).

However considerable concern still existed about the proposed mill site. In July, the ACC voted on whether to approve the mill after the EPA gave its approval for the proposed site. Some councillors reportedly tried to rezone the proposed site from ‘rural’ to ‘special industry’, a move criticised by others as an attempt to delay the decision to approve the site. Concerns about whether the mill would have a negative impact on nearby water quality were expressed. In the end, the ACC voted 8-6 to approve the mill (AA 27/7/2000;1,2).

In September 2000, mill construction began (AA 7/9/2000;4). No further public reporting of concerns was found in the Advertiser or other media sources after this time. Interview respondents stated that further concern did occur but, with all approvals in place and the mill under construction, attention tended to shift to other issues.

In late 2001, the APEC woodchip mill began operating, and in March 2002 the first export shipment of woodchips from APFL plantations occurred (AA 6/11/2001;1; APEC 07/03/2002).
No reports of adverse environmental impacts from the mill site were found in the media and documentation reviewed for this study, and interview respondents did not report any concerns being raised once the mill was constructed.

5.9.2.1 Did positive change occur in the conflict?

Outcome-based evaluation

This conflict stopped once final approvals were given for the mill to proceed and the mill was constructed, as can be seen by the record of reports on concern over mill siting in the Advertiser (Figure 5.12). However, while conflict stopped, there were clearly varying views as to whether the outcome of the conflict was positive or negative.

![Figure 5-12: Number of articles and letters published in the Albany Advertiser reporting concerns related to establishment and operation of plantation processing facilities in the Great Southern](image)

Process-based evaluation

The processes in place for approving the mill site allowed considerable disagreement to be expressed. However, they allowed for little to no direct communication between groups; nor did expression of concerns in the media. The approvals processes allowed only the submission of concerns, with decisions made by third parties. The processes
used did not act to reduce disagreement between groups, and were used to make
decisions that left some groups clearly unsatisfied.

The short timeframes provided at some points to make decisions appeared to increase
levels of concern. Although difficult to confirm based on the available data, there did
appear to be a lack of involvement of key environmental groups in the planning
processes, perhaps leading to the lack of trust expressed by these groups in decisions
made about necessary levels of impact assessment.

Relationship-based evaluation

Relationships between different groups did not improve during this conflict. The only
potential exception may be the relationship between members of the ACC and
proponents of the mill, given the joint statement released by them, but it was not
possible to confirm this based on the information available on the conflict.

Transformation-based evaluation

Similarly to concerns over fire risk and aerial spraying, a key underlying issue described
by participants in this conflict was differences in the perception of risks arising from use
of modern technology, and lack of faith in ‘scientific’ decisions about environmental
impact. The differences in perception of risk were not lessened by the time the mill was
built.

Goal-based evaluation

A key goal of those protesting the level of EIA on the site was to ensure no adverse
environmental impacts occurred as a result of the construction and operation of the mill.
This was also a goal of the mill proponents. There have been no reports of
environmental damage since mill construction, although only a short period was studied
after the mill was constructed. At least in the short term, the goals of different groups
appear to have been achieved.

The cessation of conflict clearly did not result from improvement in process or
relationships between groups involved in the conflict. The lack of ongoing publicly
reported concern over environmental impacts of the mill, however, indicate that goals of
different groups have been achieved, at least in the short term. This indicates some
successful outcomes, despite the relatively adversarial processes involved in approving the mill site.

5.9.3 Event history analysis

When events involved in this conflict were analysed, two parallel sets of events – one strongly supporting the mill development, and one opposing it – could be identified, as shown in Figure 5.13. While there were links between these two sets of events, they were not always strong. The strongest link was the triggering of concerns when the mill development was proposed. The expression of concerns, however, did not have a noticeable impact on the subsequent chain of events, up to and including the construction of the mill. Hence the two chains of events are shown as mostly unidirectional, with the processes used to approve the mill creating concern, but concerns not tending to feed back to effect how mill approval processes were undertaken.

Proponents of the mill site disseminated information on the proposals at various points, and submissions from concerned individuals were encouraged. However, decisions were ultimately made by experts based on their assessment of likely environmental impacts. It is not clear that the submissions lodged had a large impact on this process, although the extent to which they influenced decisions could not be identified. The use of experts to make decisions may have resulted in a scientifically defensible decision, but those holding concerns were clearly not satisfied with the decision making process.

The exception was the process of achieving approval from local government, a decision-making space that could be influenced by critics of the proposed mill site. The contentious 8-6 vote for the mill demonstrates that the Albany City Council was a key forum in which conflicting views were expressed, and where some links did occur between the two event streams.

The conflict ended with construction of the mill. No further environmental concerns were discussed publicly after this point. The decision to approve the mill was the critical event that changed conflict, as the mill was constructed and, with all avenues for expressing concerns exhausted, no further protests were made even though the concerns of critics about the proposed mill site had not changed.
Calls from range of groups for investment in processing infrastructure as plantation estate matures in region

Announcement of proposed mill site

Albany City Council gives support in principle for mill on short notice

WA State Cabinet announces support for site subject to feasibility and environmental approvals

Two day public display and calls for submissions on issues including environmental to consultants preparing recommendations for Dept of Environmental Protection

Oji Paper and Itochu Corporations approve project and form APEC

Dept of Environmental Protection announces informal review to be used for environmental assessment

Approval given by Dept of Environmental Protection

ACC votes to approve site

Mill construction occurs and operations begin

Debate and some concerns over what might be appropriate sites for a woodchip mill.

Opposition to and concern about proposed site from some community members and groups. Range of meetings and expression of concerns.

Appeals lodged against proposed level of environmental impact assessment by Albany City Council (ACC) and environmental groups

ACC withdraws appeal after lobbying; Oji and Itochu assure community concerns will be considered

Figure 5-13: Event history analysis of conflict over siting of mill in the Great Southern
5.10 Conflict 7: Transporting woodchips to port

The site of the woodchip mill was only one of the concerns related to the shift to harvest and processing of the region's blue gum plantations. With woodchips planned to be exported from Albany Port, concerns rose that this would increase the volume of heavy traffic travelling through the City of Albany. When the APEC mill was proposed, immediate concerns were raised over how the woodchips it produced would be transported from the mill – situated several kilometres outside the City of Albany – to the Port, which is surrounded by the residential and shopping areas of Albany.

In addition, concerns were expressed about how woodchips produced by in-field chipping, a process in which woodchips are produced at the plantation site and transported direct to the port for export, would be transported. However, as early harvests of blue gums were mostly to go to the APEC mill, initial transport concerns centred on the mill.

This conflict was also related to general concerns about road damage from increased plantation-sector related traffic, but as it involved specific issues over transport of woodchips to port, is discussed separately to concerns over broader roading issues.

5.10.1 Information available on the conflict

Information on this conflict was drawn from media reports, and interviews, with six respondents from the plantation sector, local government and community groups discussing transport issues. The level of availability was similar to that over mill siting issues.

5.10.2 History of the conflict

At the same time that Oji Paper and Itochu Corporation were investigating constructing a woodchip mill in the late 1990s, concerns about how woodchips would be transported from the woodchip mill to the Albany port for export began to be reported in the *Advertiser*.

The reports centred around concerns that transporting woodchips to the port by road would result in traffic congestion in Albany. Suggestions were made that a rail line

Link Road business operator Mr Davis ... said if the wood chips were transported by road not rail, the traffic would have a serious effect on people’s quality of life. (AA 17/11/1998:3)

This issue was linked to ongoing debate over the construction of a ring road in Albany to reduce heavy traffic shifting through the centre of the town. In November 1998, the Transport Minister extended consultation phases for the ring road until the location of the APEC woodchip mill was known (AA 17/11/1998:3; AA 1/12/1998:1).

On November 11 1998, a Special Electors’ meeting was held in Albany, at which concern was raised about the road transport implications of siting the APEC mill at Down Road were raised. Other sites were argued to be better for transport of woodchips by rail rather than road (AA 4/3/1999:6).

In December 1998, a no-confidence motion was passed in the existing ring road steering committee, and calls made for inclusion of community members on the committee. Main Roads invited two City of Albany councillors to represent the community, rather than residents potentially impacted by the proposed ring road. They argued that including more people would make the steering committee unworkable, and that their consultation processes had already adequately canvassed the community’s views (AA 20/05/1999:3).

The Ring Road Residents Group, which had been formed by residents concerned over the proposed Albany ring road, held a public meeting on May 24th 1999, expressing concern about the proposed woodchip mill location and calling for rail transport of woodchips. The proponents of the mill stated that their plans for the mill were not directly linked to construction of the ring road, and promised that if rail transport of woodchips was economically feasible, it would be used instead of road transport (AA 27/5/1999:5 [all three articles]).
In August 1999, Timbercorp and ITC said they were unlikely to transport woodchips to the Albany port by rail, as road transport would be more efficient given their plans to use in-field woodchipping \(^{107}\) (*AA* 3/8/1999: 1)

Timbercorp land and projects general manager Tim Browning said the company would use the rail only if it was cheaper. But it was unlikely rail would be cheaper. ... The Ring Road Residents Group has expressed fears that up to 2 million tonnes of woodchips, chipped onsite at plantations by portable chipmills, will be moved to the Albany port by road. (*AA* 3/8/1999:1)

Ongoing calls were made by Albany residents for transport of woodchips by rail (e.g. *AA* 19/8/1999:6; *AA* 2/9/1999:7). In August 1999, the Albany Community Regional Development Alliance (ACRDA) was formed to monitor the impact of the woodchip industry on the region. The ACRDA expressed concerns about the impacts road transport of woodchips might have on tourism, and also called for transport by rail, not road (*AA* 23/9/1999: 1,2; *AA* 12/10/1999:3; *AA* 9/12/1999:2):

> The group ... supported the building of an inland port linked to the rail system to avoid a bottleneck of trucks and storage problems at the port, with all woodchips being delivered to the depot on a ‘cost neutral’ basis so as not to penalise the industry. (*AA* 23/9/1999:2)

ACRDA launched a petition in October 1999, asking ‘that the State Government initiate a cost-neutral rail freight system to transport all woodchips whether mill-chipped or plantation-chipped from an inland assembly area into the Albany Port’ (*AA* 12/10/1999:3). ACRDA again emphasised that it wanted to ensure the plantation industry was not penalised by having to double-handle woodchips if transport by rail was used.

In early December, ACRDA held a public meeting at which a transportation researcher supported transport by rail. The WA Transport Minister consistently supported the rail option as well (*AA* 9/12/1999: 2).

In December 1999, the proponents of the APEC mill announced that they had decided to transport woodchips from the mill to the port by rail (*AA* 16/12/1999:1,3):

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\(^{107}\) As was briefly discussed earlier, ‘in-field’ woodchipping involves harvesting trees and processing them into woodchips at the plantation site, with woodchips then transported directly to their destination market – in this case, to Albany Port for export.
Albany's chipmill proponents have committed to using rail to transport woodchips to the port. Oji Paper and Itochu Corporation announced the plan on Friday after months of public debate on the merits of rail versus (sic) road transport. ... Oji Paper and Itochu Corporation consultant Peter George said the decision to construct the spur was a boost to the economic viability of rail, especially in the first years of the project. "Although the use of rail in the early years when the tonnage is low is still slightly more expensive than road, the project's parent companies had taken into account the wishes of the State Government and the Albany community," he said. (AA 16/12/1999: 1,3)

The decision was welcomed by the ACRDA (AA 16/12/1999: 3). Construction began on the railway line in July 2001 (AA 30/06/2001: 3).

While this resolved the issue of transport of woodchips from the APEC mill, there were still concerns over how other woodchips, e.g. those processed using in-field chipping, would be transported to port before export (e.g. AA 25/5/2000: 1).

ARCDRA argued in September 2000 that an inland freight terminal with a rail link to the port should be constructed to ensure truck movements through Albany would not increase dramatically (Albany and Great Southern Weekender 21-27/9/2000:3). In February 2002, this option was rejected by the Department of Planning and Infrastructure after they found it was not commercially viable (AA 28/2/2002: 1,2).

The Department subsequently began costing alternative traffic arrangements to deal with increased truck movements to the Albany port that would occur as increasing areas of plantation were harvested in the region (AA 9/3/2002:3).

5.10.3 Did positive change occur in the conflict?

Outcome-based evaluation

The level of concern reported in the media about transport issues fell after the APEC announcement that woodchips from their mill would transported to port by rail (Figure 5.14). However, ongoing concern continued to be expressed about the amount of traffic likely to result from road transport of other woodchips.
Figure 5-14: Number of articles and letters published in the *Albany Advertiser* discussing concerns over transport of woodchips to the Port of Albany in the Great Southern

**Process-based evaluation**

Processes used to express and act on this conflict mostly involved lobbying by groups formed specifically to act on this issue. There was clear concern early in the conflict that community members were not formally included on government committees examining transport options. This helped trigger formation of organised community groups to lobby on the issue.

**Relationship-based evaluation**

Relationships in this conflict did not deteriorate appreciably during the course of the conflict. ACRDA appeared careful to ensure it was seen as acknowledging the needs of the plantation industry in any of its calls, while the plantation sector similarly acknowledged the legitimacy of the concerns being raised. Relationships therefore appeared relatively positive in this conflict compared to most of the others examined.
**Transformation-based evaluation**

When asked what factors may have underlain this conflict, the only issues raised by two respondents were forward planning for transport infrastructure. No other respondents could identify any issues underpinning the overt expression of concerns over transport of woodchips to port.

However, it is clear that, similar to the whole-farm planting debate, underpinning the issues were the economic constraints faced by the plantation sector. When the decision was made to use rail transport from the APEC mill, the mill proponents emphasised this decision was made because the costs were only slightly higher than those of road transport. Had this not been the case, a different conflict outcome is likely to have occurred.

**Goal-based evaluation**

The goals of those holding concerns over road transport were largely met with regard to the early harvesting activities in the region, with construction of the railway reducing road transport of woodchips. However, some issues clearly remained.

The needs of the plantation sector in this case were to find economic ways of transporting woodchips. The economic viability of rail transport from the APEC mill to the port ensured the plantation sector’s goals were met in a way that satisfied those with concerns over road transport. However, again there was clear potential for further issues to occur with regard to transport of field-chipped woodchips to Albany port.

**5.10.4 Event history analysis**

Figure 5.15 shows the EHA of this conflict. A relatively simple chain of events occurred, with most of the conflict centred on a cycle of calls for rail transport from those concerned about impacts of road transport, followed by statements from the plantation sector that rail would be used if feasible.

The key event that changed this cycle with regard to the APEC mill was simply the announcement that rail transport would be used. This met the goals of all participants as far as the APEC woodchip mill was concerned. However, an ongoing cycle of issues may still continue as other plantation companies transport woodchips by road.
A key question posed by the EHA is whether the expression of concern about road congestion was necessary for the subsequent decision to use rail to transport woodchips to port. It seems likely that it was, as the costings produced reportedly found that rail transport rail transport was slightly more costly than road transport from the APEC mill during the early years of harvesting. If concern had not been expressed about road congestion, it seems likely that the road option would have been used, as it required less investment as harvesting started. The lobbying undertaken for rail transport clearly influenced the ultimate decision.

The reason rail transport could be chosen, leading to a positive conflict outcome, was because it was possible to utilise this alternative to road transport within the economic constraints faced by the mill proponents. The transport of woodchips produced by infield chipping, however, was found to be considerably more expensive by rail than road, and so no similar action was taken over transport of woodchips produced outside the APEC mill.
As plantations mature, planning begins for infrastructure needed at harvest time.

Concerns expressed over potential for congestion on roads if woodchips transported by road to Albany Port for export.

Calls for transport of woodchips by rail from various groups and individuals.

Plantation sector agrees to rail transport if it is found to be economic.

APEC announces woodchips from APEC mill to be transported by rail.

Other plantation companies will likely transport woodchips by road.

Some ongoing concerns over road congestion issues.

Figure 5-15: Event history analysis of conflict over transport of woodchips to the Port of Albany in the Great Southern.
5.11 Conflict 8: Maintaining rural roads

Associated with maturation of the bluegum estate was concern over the maintenance of local and regional road networks that would be used to transport logs and woodchips when plantations were harvested. This conflict largely focussed on debate over how to fund the work needed to upgrade and maintain these roads.

5.11.1 Information available on the conflict

Data on this conflict was primarily gathered from interviews with key stakeholders, key documents, and some media reports. Eight interview respondents discussed roading issues, including the processes being used to address roading concerns.

Many of the events and issues in this conflict were not reported in the media, and so media reports formed a less important record of events and interactions than for many of the other conflicts studied.

A key constraint was that this conflict is most likely only in its early stages – very little harvesting was occurring by the end of the period studied, and the volume of logs and woodchips transported on the region’s roads was set to rise rapidly in coming years. Nevertheless, even the early stages reported on here provided useful comparison to a similar conflict occurring in County Leitrim (discussed in Chapter 6).

5.11.2 History of the conflict

Considerable concern has been expressed in the region over how to fund the maintenance and upgrading of rural roads that will be used to transport logs and woodchips (for example, see AA 25/6/1998: 10).

The roading problem was summarised by GSACCWA (1999):

The Great Southern Regional Road Group LOG HAUL TRANSPORT STUDY reveals that a minimum of $37,074,650 is needed to upgrade 801 kilometres of local roads in this region for the transport of woodchips and logs ... $10.9 million of this will be provided through the Transform WA Program ... The conversion of agricultural land to tree farming will impact dramatically on roads as the tonnage of plantation timber per hectare is 10 times that of livestock and cereals. ... This represents more than a fourfold increase in heavy haulage, mainly carted by 40 tonne articulated
trucks. The above mentioned study estimates there will be a minimum of 140,510 timber truck movements in this region in 2007 alone. This compares to 679 timber truck movements in 1999.' (GSACCWA 1999: 10)

The log haul transport study found that 1200km of local roads – the roads managed by local government authorities – would be affected. It identified the need both for upgrading of roads and for ongoing maintenance (AA 5/11/1998: 1).

The key issue of contention has been over how the road maintenance and upgrading needed to support plantation-related traffic will be funded (e.g. AA 20/05/1997: 1,2). Three respondents reported that disagreements had occurred over whether the plantation sector or local government should be responsible for funding road work. All agreed there was a need to source funding from State or Commonwealth governments.

These disagreements have been addressed by creating processes within which different groups can work collaboratively to develop strategies for meeting roading needs.

The study by the Great Southern Regional Road Group was followed by the development of the Timber Industry Road Evaluation Strategy (TIRES) in 1999. TIRES is an initiative involving representatives from the plantation industry, State government agencies (particularly the Department of Transport) and local government; its formation was driven in large part by Timber 2002 (AA 23/2/1999: 5 [article by B. Kelly]). TIRES has worked to identify the road networks that will be used by the plantation industry, the funding needed to upgrade and maintain roads, and has worked to try to obtain that funding.

TIRES has achieved some important outcomes. For example, in April 2000 MAIN Roads WA announced it would prioritise the upgrading of roads servicing the tree farm industry (AA 11/4/2000:7). In 2002, TIRES announced it had won funding for an increased budget for the Plantagenet Shire Council to upgrade roading for the woodchip industry (AA 5/2/2002: 3).

Efforts to obtain the required funding have focussed on the Commonwealth government. The WA Government in the Blue Gum Plantation Industry: Regional Transport Infrastructure report in 2000 'presented a case for Commonwealth infrastructure support
based on business investment returns ... The Commonwealth [however] has made it clear this is not the preferred approach.'

TIRES and the Great Southern Development Commission (GSDC) have attempted to convince the Commonwealth of the need for funding by developing models that quantify 'the economic, social and environmental benefits which flow to a region by achieving a sustainable plantation timber industry' (GSDC 2002). The rationale they use is that:

A key role of government is to provide basic infrastructure to enable industry to create sustainable employment. There is, therefore, an overwhelming argument for government support of Western Australia’s Blue Gum plantation industry, justified by strong economic, environmental and social considerations. (TIRES n.d.: 6)

At the end of the period studied, the harvest of plantations was only just beginning. Two respondents identified that road issues were likely to become more acute over time and that ongoing processes would be needed to address these issues.

In early days of harvesting, several strategies have been used to reduce road damage potential and ensure road safety. Plantation companies ensure strategies such as reducing tyre pressure are used to reduce road damage. Consultations with local communities have been held discussing road transport issues and explaining the methods used to reduce noise, road damage and to ensure safety. Three respondents who participated in other conflicts as strong critics of the plantation sector reported that they were satisfied with the level of consultation about these issues, and with their observations of the impacts of logging traffic.

A related issue to the concerns over road damage arose towards the end of the study period. Some concerns over road safety were expressed, with a perception that logging traffic had the potential to reduce safety, particularly for school buses travelling on local roads. Taking logging traffic off roads during school bus travel times would result in economic loss for the plantation sector. As a solution, the plantation companies organised installation of CB radios in school buses so that truck drivers and school buses could communicate about their locations on local roads and avoid travelling on the same roads at the same times. This has been seen as a successful solution and, up to
the end of the study period, public concerns had not been reported in the media about the issue.

5.11.3 Did positive change occur in the conflict?

Concerns over road damage represent a useful case study precisely because they have not developed into acrimonious dispute in the region – at least, not in the public domain. All but one of the interview respondents who discussed the issue believed that there had been generally good discussion over roading issues, with recognition from all parties that there was an urgent need to address road upgrade and maintenance issues. Only one respondent, a local government representative, was dissatisfied with the plantation sector response to roading issues in general.

In general, there appears to have been relatively little ongoing dispute or disagreement between groups, with multi-stakeholder groups formed to jointly examine roading issues and act on them productively from an early stage. Whether this will remain the case is yet to be seen, with roading issues set to become a higher priority as harvesting expands in the region.

Outcome-based evaluation

Overall there have been fewer reports of concerns over roading in the Advertiser than there have been over other issues such as establishment and management of plantations, or over mill construction and woodchip transport through Albany. The highest number of items, particularly those reporting concerns, occurred in 1999, the year that TIRES was formed to address concerns (Figure 5.16). The number of items reporting both concerns and benefits subsequently fell, with only a total of five items in 2000 and four items in 2001, despite harvesting beginning in the region during this time.
Figure 5.16: Number of articles and letters published in the Albany Advertiser discussing concerns over road transport and infrastructure issues in the Great Southern

Process-based evaluation

The drop in reporting of concern, and in overall reporting of both concerns and positive perceptions, suggests that TIRES is working to provide a productive space for conflict to be expressed and acted on.

Relationship-based evaluation

The formation of TIRES has had the effect of improving relationships between different groups, as through TIRES all work towards the same objective – identifying roading needs and obtaining the funding required. Relationships have been relatively good throughout the early stages of debate over roading issues, and probably improved somewhat through groups working together in TIRES.

Transformation-based evaluation

Funding structures for roading were identified by four respondents as the key factor producing, or having the potential to produce, ongoing disagreement over responsibility for funding road upgrades and maintenance. Respondents described their understanding
of these funding models in various ways, sometimes contradicting each other. All
agreed, however, that inadequate funding is currently provided to state and local
governments to upgrade and maintain local roads. Much of the disagreement focused on
debate over who should be responsible for providing funding, particularly over whether
state or Federal governments, and/or the plantation sector, should contribute, and to
what extent.

The outcomes of the conflict are therefore partly – and probably largely – dependent on
the decision of actors located outside the Great Southern, and outside the group
discussing the conflict, on whether to provide the requested road funding. No decisions
had been made which led to change in the issues underlying the conflict by the end of
the period studied.

**Goal-based evaluation**

Local governments, the plantation sector and State government agencies all held
relatively similar concerns about roading. While there were some disagreements about
how to address these concerns, all agreed on the need to achieve adequate road funding.

This goal had not been met by the end of the time studied.

**5.11.4 Event history analysis**

The event history analysis of this issue is fairly simple, showing an ongoing process
which has no definite conclusions, as yet. The development of a multiple stakeholder
committee to jointly discuss and act on roading issues is the key action that has
produced positive outcomes to date. The relatively small number of events reflects a
cohesive interaction between groups that may change in the future, depending on the
level of success in achieving funding for roadwork.
Identification that road upgrade and maintenance will be needed

Discussions between plantation sector, local government, regional development bodies, State agencies

Quantification and planning of road works needed at local and regional scale

Ongoing work lobbying for funding

Identification and implementation of strategies for reducing road damage and ensuring road safety when plantation harvesting began

Figure 5-17: Event history analysis of conflict over road infrastructure and safety in the Great Southern
5.12 Conclusions

The eight conflicts identified over afforestation in the Great Southern varied considerably. Some conflicts had little if any connection to others, involving different topics, actors and processes. It is clearly appropriate to consider concerns over afforestation to be a cluster of loosely related conflicts, rather than a single conflict with multiple issues.

A key point is that multiple conflicts occurred over afforestation at the same time and in the same case study region, yet these conflicts were clearly distinct from each other. The event history analyses suggested that a range of actions – varying between conflicts – were used to address conflict, sometimes successfully and sometimes not. This suggests that different actions may be associated with successful change in conflict in different situations, rather than a single type of process or action always being associated with successful change.

The next chapter examines conflict over afforestation in the second case study region, Co. Leitrim.
6 Case Study 2: County Leitrim, Republic of Ireland

6.1 Introduction

This chapter is presented in two parts. First, a brief contextual history of Co. Leitrim is given, mostly focusing on the history of afforestation in the region. Secondly, six afforestation conflicts occurring in the region between 1968 and 2000 are analysed. A strategic narrative of each conflict is given, focusing on events and actions relevant to conflict. This is followed by an evaluation of whether the conflict changed successfully at any point during the period studied, using the five measures of successful change given in Table 4.1. Finally, an event history analysis is presented, identifying likely causal relationships between events in the conflict.

6.2 County Leitrim

6.2.1 Location

County Leitrim is a small county\(^{108}\) in the north-west of the Republic of Ireland (Figure 6.1). At 159,003 hectares, it covers only 2.2% of Ireland (Western Development Commission 2004). It lies mostly inland, bordering Counties Donegal, Sligo, Roscommon and Cavan in the Republic of Ireland (commonly called the ‘West’ or Western counties), and County Fermanagh in Northern Ireland.

In general, the County is divided into the more hilly and mountainous North Leitrim which ‘is comprised mainly of table-like mountains separated by deep valleys’ while South Leitrim ‘is covered by a belt of drumlins\(^{109}\) ... a patchwork of small fields, which are mainly under grass and rushes’ (LCDB 2002: 8). Perhaps the most well-reported aspect of Co. Leitrim’s physical resources is the lack of drainage of its soils. Only approx. 7% of the county’s land has free internal drainage, while 84% is classified as

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108 A county is a local government area, effectively parallel to a Shire in the Australian case study.
109 Drumlins are ‘rounded mounds of gravel debris left by retreating glaciers (Gardiner 1973b; LCDB 2002).
poorly drained. In the 1970s, only 4% of the soils were considered suitable for tillage (Gardiner 1973b).

![Map of County Leitrim](image)

Source: Public domain maps from [www.irelandstory.com](http://www.irelandstory.com) and [http://www.wesleyjohnston.com/users/ireland/geography/leitrim.html](http://www.wesleyjohnston.com/users/ireland/geography/leitrim.html)

Figure 6-1: Map of County Leitrim

### 6.2.2 Brief history to 1922

After a long history of English invasion, conquest and Gaelic revival, the English successfully conquered the large majority of Ireland in the 1600s under Elizabethan rule. Following this Plantations were established in Ireland, in which land was taken from the native Irish and given to the control of landlords from Scotland and England. The

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110 Of the remainder, 3% has variable drainage and 6% of the area of the county is covered by lakes and rivers (Gardiner 1973a; LCDB 2002).

111 The term Plantations here refers to the establishment of a settlement in which colonists were 'planted' in the new settlement, displacing existing inhabitants.
Irish were dispossessed of their land, forced to shift or to remain as tenants largely subject to the whim of their landlord and with few legal rights or protection. The area of Leitrim was the subject of Plantation in the 1600s (for a detailed history see Foster 1992; Cronin 2001).

During the 1800s, the Irish economy experienced both boom and depression. However, it was a series of famines that changed the face of the rural population, as potato blight ruined the potato crop from 1845 to 1849 and caused deaths numbering, according to some estimates, up to one million people, while up to another million emigrated to escape the threat of starvation (Cronin 2001). The catastrophic effects of the potato blight occurred largely as a result of the complicated system of land tenure in Ireland, which was also to affect later conflict over afforestation and so needs to be examined briefly here. By the mid 1800s, the problem of ‘congestion’ – crowded rural areas with high populations living on very small properties – was widespread in Ireland. This was partly a result of land inheritance patterns in Ireland (both legal and social), in which all sons inherited equal shares of land, with tenanted properties subdivided amongst sons and hence tenancies becoming progressively smaller in many areas. In 1845, the majority of tenancies were below six hectares in size (Turner 1993). It was also a result of early marriages and a high birthrate in the population. As a result, many smallholders depended on potatoes as they were the sole crop that could be grown in sufficient quantity to provide adequate subsistence from the small areas of land held by tenants (Foster 1992; Cronin 2001).

After the potato famine, the population of many areas of Ireland fell continuously through to the 1900s, including in Leitrim as is discussed further below.

After the catastrophe of the potato famine, a long campaign began for agrarian reform. This resulted in the passing of the 1881 Gladstone Act, the first of a series of Land Acts passed between 1881 and 1921 which established rights for tenants, and provided for tenants to purchase landlord’s interests using money provided by the State. Land ownership was gradually returned to the Irish from this point on, facilitated by the Irish Land Commission which was established in 1881 by the Gladstone Act to oversee the fixing of land rents, and evolved into a commission that coordinated the transfer of land
from landlord to tenant via purchasing land from landlords and determining how and to
who it would be distributed. In total, the Land Commission transferred ownership of
13.5 million acres of land (SE\textsuperscript{112} 7/10/1994 Vol. 178 No. 4: 211; Foster 1992).

The redistribution of land was a major challenge, with many smallholders holding
tenancies far too small to enable them to survive from the produce they could grow on
their land. The Land Commission had to redistribute tenancies to try to create viable
landholdings for smallholders. Through the process of redistribution many smallholders
were forced to shift to take up new holdings provided to them, or ended up with three or
four small, separate properties. In the West, the resulting property sizes were small –
often less than eight hectares (Turner 1993).

6.2.3 Development after 1922

By the time the Irish Free State was established in 1922, redistribution of land was still
needed to improve the lot of smallholders, who often lived under conditions of extreme
poverty. The Land Commission after 1922 focussed on structural reform to achieve
viable holdings, and on a program of improvement works including buildings, drainage,
water supply and fencing (DE\textsuperscript{113} 2/5/1989 Vol. 389: 942-945). This structural reform
involved further acquisition and redistribution of land by the Land Commission to
improve farmer’s holdings.

In Co. Leitrim, prior to the Famine there had been considerable congestion of rural
areas, with the soil able to support potato growing while being poor for many other
agricultural activities. In the 150 years after the Famine, Co. Leitrim experienced the
greatest population decline of any County in Ireland. As can be seen in Figure 6.2,
continuous population decline was recorded in the County from the time of the potato

\textsuperscript{112} SE refers to ‘Seanad Eireann’, the Senate of the Irish Parliament. As a number of Seanad debates are
referenced, ‘Seanad Eireann’ has been shortened to ‘SE’ throughout, and in the text the Seanad Eireann is
referred to as ‘the Seanad’. To avoid confusion between multiple references, the full date and volume of
each reference is given.

\textsuperscript{113} DE refers to ‘Dail Eireann’, the House of Representatives of the Irish Parliament. As a number of Dail
debates are referenced, ‘Dail Eireann’ has been shortened to ‘DE’ throughout, and in the text the Dail
Eireann is referred to as ‘the Dail’. To avoid confusion between multiple references, the full date and
volume of each reference is given.
famine in the 1800s through to 2002, when a slight increase in population was recorded (from 25,057 in 1996 to 25,799 in 2002):

Between 1841 and 1971 the population of Co. Leitrim declined by 81.7%. Over the same period the population of the State had a 54.4% decline. (Curry 1975a: 8-9)

Source: Central Statistics Office, Ireland (http://www.eirestat.cso.ie/Census)

Figure 6-2: Co. Leitrim population 1821 to 2001

Through the 1900s, Co. Leitrim was characterised by an ageing population with higher than average male to female gender ratio, higher than average numbers of unmarried men, relatively low levels of formal education, and high levels of poverty with poor living conditions for much of the population (Curry and Hickey 1975; LCDB 2002).

Co. Leitrim’s economy has traditionally been predominantly agricultural, and remains highly reliant on agriculture, although with some development of other industries – particularly forestry since the 1950s and, more recently, wood processing and increasing tourism through the 1990s.

Agriculture in Co. Leitrim mainly consisted of subsistence farming until the 1950s, after which increasing mechanisation, enlargement of farms was associated with ongoing decline in total agricultural employment, a shift to part-time farming and increased reliance on off-farm income for many Irish farmers (Emerson and Gillmor 1999;
Commins 2001). The county’s male agricultural labour force halved between 1951 and 1971. Despite these changes, in 1973, 67% of all employment in Leitrim was still in the agricultural sector, primarily in dairying, pig rearing and sheep and cattle grazing. At that time, over 80% of holdings were less than 50 acres – 22.7 hectares – in size (Gardiner 1973a: 2), even though since establishment of the Republic of Ireland in 1922, many farmers had expanded their holdings to make a viable farm unit though purchase of land or distribution by the Land Commission, or by eleven-month letting of land (Curry and Hickey 1975). By 1996, only 20.45% of the labour force was employed in agriculture, forestry and mining (Western Development Commission 2004), and between 33% and 39% of all farm owners were part-time farmers (LCDB 2002: 69). There was a shift to beef production, which by 1996 made up 76% of farming (LCDB 2002: 70). Organic farming increased rapidly between 1992 and 2000 from 7 to 55 farmers (LCDB 2002: 72).

This decrease in farmers was accompanied by increasing urbanisation of the population. In 1971, only 5.3% of Co. Leitrim’s population lived in towns, compared to 52.2% nationally (Curry and Hickey 1975). By 1996, however, 24.1% of the population lived in towns, although the region was still largely rural (Western Development Commission 2004).

There has been rapid socioeconomic change in Co. Leitrim in recent years, particularly since the late 1990s, when implementation of a European Union funded Rural Renewal Scheme led to rapid housing development, business start-ups and some migration to the county (LCDB 2002). By the late 1990s, participation in third level education by Leitrim school leavers was higher than for the country as a whole, but few tertiary graduates were returning to work in Leitrim114 (LCDB 2002; Western Development Commission 2004). Despite this rapid positive change, social problems remained – for example, suicide rates remained higher in Co. Leitrim than in neighbouring counties and the country as a whole (LCDB 2002: 94).

114 Because of the numbers of young people leaving the County, the resident population in Co. Leitrim in 1996 aged 15 or over with scientific or technological qualifications was 36.28%, compared to 57.09% for the State overall (LCDB 2002).
A key shift has been the shift to increasing numbers of farmers who work part-time off the farm, particularly since the mid-1990s; as well as more farmers who are coming back to the land after a period working in other parts of Ireland or overseas.

6.2.4 History of afforestation

Afforestation only occurred in Co. Leitrim from the 1940s, and on a large scale only from the 1960s. However, understanding the issues that occurred over afforestation in Leitrim requires examining the history of afforestation in Ireland as a whole.

By the 1920s, only approximately 1.25% of the Republic of Ireland was forested (Neeson 1991: 110). Since that time, extensive afforestation has taken place, and by 2000, 9.43% of the Republic of Ireland was classified as forested (Forest Inventory and Planning System Unit 2000), over 99% of which was ‘man made plantation’ (AIB Capital Markets and Merrill Lynch 2000).

Across Ireland, the State dominated planting until the mid-1980s when private planting began to increase substantially. Public planting has declined since this time (Figure 6.3).

![Afforestation by the private and public sector in the Republic of Ireland, 1920 to 2000](image)

**Figure 6-3:** Afforestation by the private and public sector in the Republic of Ireland, 1920 to 2000

A relatively similar pattern of afforestation occurred in Co. Leitrim (Figure 6.4), although planting began later than for the eastern parts of the country, with the first
records of State planting found in 1947-48, although it is likely some State planting took place before this time. Similarly to the rest of the country, State planting peaked through the 1960s. The rate of private afforestation overtook the rate of public afforestation from 1986. Since the late 1980s there has been more variation in planting rates in Co. Leitrim than the country as a whole.

Figure 6-4: Afforestation by the private and public sector in Co. Leitrim, 1947-48 to 2000

In 1987, 8.92% of Leitrim was forested; by 1992 the area covered was 11.11% and by 1997 12.9% (DE 17/11/1998 Vol 496: 1369-1370).

Almost all phases of afforestation in Ireland, particularly in Co. Leitrim, were accompanied by some form of conflict.

While 20th and 21st century afforestation in Ireland takes a very different form to that occurring prior to 1900, the antecedents of modern afforestation conflict can be readily traced to occupation of Ireland by the English. After invasion by the English, foreign landlords controlled Irish estates, with the Irish working as tenants on the land. Landlords often undertook some afforestation on parts of their estates, particularly in the 1800s, and afforestation reportedly came to be seen by many of the Irish as a symbol of oppression by the landlords (Neeson 1991). When agrarian reform began from 1881,
afforested areas were often cleared during this land transfer, to obtain money for trees and because trees were ‘a visible and resented symbol’ of the role of the landlords (Neeson 1991: 118).

Soon after the establishment of the Irish Free State in 1922 (and indeed, even before this time), many drew attention to the lack of tree cover in Ireland, a result of felling of trees by the English for various purposes including supplying timber for the British navy, and by the Irish as land was returned to them. Afforestation was called for, and soon the State developed a program of afforestation aiming to restore forests for wood production and, in some cases, to provide employment programs in poverty stricken areas (Neeson 1991; Gillmor 1993; O'Carroll 1997).

When afforestation began to be undertaken by the State, it had to be undertaken on land purchased back from farmers. This led from the earliest times of afforestation to concerns that the land being afforested could instead have been used to help enlarge the holdings of smallholders (e.g. DE 16/11/1927 Vol. 21: 1374-75).

To try to ensure that only ‘waste land’ unsuitable for agriculture was used for afforestation, the State set an upper price limit to be paid for land for afforestation. The intention was that the low price would allow the State to buy only marginal land, not land suitable for agriculture. However, this policy led to concern that landholders received unfairly low prices for land they sold to the State (e.g. DE 27/6/1934 Vol. 53: 1188-1189).

Initially, afforestation efforts were concentrated in the east of Ireland, as trees were more easily established in the east than on the boglands and poor soils of the west of the country. It was not until after World War II that a combination of newly introduced tree species, together with changes in technology enabling use of the peatland of the West, enabled afforestation to occur on a large scale in the West, including in Co. Leitrim. The changes included a shift to establishing plantations of two conifers native to North America - *Picea sitchensis* (Sitka spruce) and, to a lesser extent, *Pinus contorta* (Lodgepole pine), as well as introduction of new methods for deep ploughing enabling successful tree growth in boggy areas (Neeson 1991).
Resistance to afforestation from farmers occurred from the beginning of afforestation in the West of Ireland in the 1950s. A variety of concerns were expressed, predominant among them the concern that the land being afforested could have been used to expand smallholder's properties and thus help them to escape what was often severe poverty.

In Co. Leitrim, the rate of afforestation began to increase in the late 1950s, and around 450-500 hectares was afforested annually through the 1960s and early 1970s. There is considerable evidence of negative attitudes towards afforestation in Leitrim in the late 1960s, as well as actions taken to try to address concerns (e.g. DE 12/6/1963 Vol. 203: 859-860; LO115 12/10/68: 5; LO 4/10/69: 1).

Nevertheless, this period was relatively calm compared to that which followed. In 1969 the Minister for Lands, Mr S. Flanagan, stated in the Dail that:

I have plans for certain areas which I regard as being particularly suitable for forestry. I refer in particular to County Leitrim and I should like to inform the House that I have directed the Forestry Division to make an all out drive to acquire land in County Leitrim, to plant it and thereby give employment to as many people as possible in that area. This perhaps involves acceptance of the fact that most of the land in Leitrim is not suitable for development in agriculture. It is as well to face realities in regard to matters like this and to abandon the effort to make a living where a living is not to be got. (DE 20/11/1969 Vol 242: 1413)

Residents of Co. Leitrim – including members of the Leitrim County Council (LCC), farming groups and others – expressed outrage at the implication that agriculture was not viable in the County, and that afforestation was therefore to replace agriculture (see for example LO 6/12/69:10; LO 25/7/70:15). From this point on, ongoing conflict occurred over State afforestation in Co. Leitrim, with farmers and other residents picketing farms the government had purchased for afforestation, public meetings, protests to government departments, and a range of other actions as described subsequently in this chapter.

In the 1970s, afforestation rates fell throughout Ireland and, despite the Minister's call for a planting drive, it declined particularly steeply in Leitrim, where afforestation

115 The abbreviation LO is used to refer to the Leitrim Observer when referencing articles from the newspaper.
dropped to around one third of planting levels during the 1960s, and sometimes much lower (Figures 6.3 and 6.4).

This partly resulted from a rapid rise in agricultural land prices throughout Ireland, precipitated by the accession of Ireland to the European Economic Community (EEC) on 1 January 1973 (DE 5/12/1972 Vol. 264: 1117; DE 18/10/1973 Vol. 268: 146). However, as discussed subsequently in this chapter, planting fell more steeply in Co. Leitrim due to the disputes occurring there over afforestation.

From 1974 to 1977, An Foras Taluntais (the Agricultural Institute of Ireland) released a series of reports from an ongoing detailed resource survey of soil productivity, social and economic resources of Co. Leitrim. An Foras Taluntais found that a large proportion of land in the County was extremely marginal for agriculture but suitable for afforestation, triggering ongoing speculation that a large part of the County would be afforested (see for example LO 19/1/74 Section Two: 1). The final report of the survey recommended a large afforestation programme to be undertaken by farmers via forestry co-operatives, and that forest processing facilities be established in Co. Leitrim in the town of Drumshanbo (LO 31/12/77: 1; Bulfin and Hickey 1978; Gardiner et al. 1978).

By the end of the 1970s, there was increasing interest in the concept of private sector afforestation, and calls were made for private afforestation by farmers to replace State afforestation. In 1980, the first private afforestation occurred in Co. Leitrim, with a private company purchasing land and afforesting it on behalf of pension fund managers. This new private afforestation was soon met by strong protest similar to that over State afforestation. Through much of the 1980s, this conflict intensified dramatically, with conflict actions including pickets of farms, protests, public meetings and court cases between conflicting parties, and formation of a local group to campaign against afforestation (described in detail later in this chapter).

Conflict reached its highest intensity in 1986 when considerable damage was done to tree planting machinery in an arson attack.

Throughout the early 1980s, protestors often called for more opportunity for farmers, rather than outsiders, to undertake afforestation. Ongoing concerns were expressed about the lack of take-up by farmers of grants for afforestation made available under the
While these grants covered a large proportion of the costs of establishing a plantation, they did not provide annual income while the trees grew.

In 1984, an organisation called the Western Forestry Co-operative (WFC) was established by five agricultural co-operatives in the West. The WFC started assisting farmers to afforest their own land, providing advice, marketing, access to services, and also helping negotiate the pooling of land across different neighbouring properties so reasonably sized areas could be afforested (LO 26/10/85: 11).

However, it was not until the late 1980s that afforestation changed substantially. The change was driven by the introduction in 1986 of annual payments for farmers who undertook afforestation on their own properties, as part of the Western Package. Since this time, some form of annual payment has been available for afforested areas\(^\text{117}\), as well as grants to cover a large proportion of the cost of establishing trees. This led to increased opportunity for farmers, rather than only the State and private companies, to undertake afforestation.

Increasingly, more farmers began to undertake afforestation. By the early 1990s, physical protests over afforestation in Leitrim had all but stopped. Most interviewees identified this as the point where the 'traditional' conflict over afforestation died down.

Data are available from 1990 separating the amount of afforestation undertaken by the private sector into three categories: farmers, part-time farmers and non-farmers. The non-farming category includes private investment companies as well as planting undertaken by Coillte, the semi-state agency managing government-owned plantations (other than planting undertaken by Coillte under their Farm Partnership Scheme).

\(^{116}\) The 'Western Package' was a package of measures funded jointly by the EEC and Irish government from 1980 to 1986. The Package included a number of measures aimed at improving conditions in the Western counties of Ireland, one of which was a scheme for forestry development (DE 21/10/1980 Vol. 323:346-420; DE 30/10/1980, Vol. 323:1258-1259). Under this forestry scheme, which applied from the start of the 1981-82 planting season, farmers could receive up to 85% of the cost of afforestation in grants, while non-farmers would be granted up to 70% of the costs, up to a maximum of £800 per hectare. A year later a shelterbelt scheme was also included, with up to 80% of costs provided, again up to a maximum of £800 per hectare (DE 16/12/1981 Vol. 331: 2224; DE 5/5/1982 Vol. 334: 343).

\(^{117}\) As long as they meet appropriate criteria including the type of species planted, as described in Appendix 8.
When the trends in planting by the three categories of private planters are compared for Ireland and Co. Leitrim (Figures 6.5 and 6.6), quite different patterns are evident. In Ireland as a whole, farmers generally planted a larger area than non-farmers over 1990 to 2000, while in Co. Leitrim farmers only planted a greater area than non-farmers only during 1996 to 1999, and the difference in the area planted was substantially less than in Ireland as a whole.

Source: Forest Inventory and Planning System Unit (2000)

Figure 6-5: Afforestation by farmers and non-farmers in the Republic of Ireland, 1990 to 2000
Figure 6-6: Afforestation by farmers and non-farmers in Co. Leitrim, 1990 to 1999

From the 1990s, as well as afforestation being increasingly undertaken by farmers (while non-farmers continued to afforest), a set of different issues began to be raised over afforestation. Increasingly, a range of organisations expressed concern over the environmental impacts of various afforestation practices, and also called for more diverse tree species to be planted than the Sitka spruce which had dominated many planting from the 1950s. Over time, increasing differentials in afforestation grants were paid to encourage the planting of species indigenous to Ireland, particularly broadleaved species such as oaks. Calls for more diverse types of planting were coupled with increasing use of plantations, which in Ireland represent almost all forest cover, as recreational areas. From the 1970s, Forest Parks were established, with recreational facilities such as walking trails and caravan parks constructed to facilitate public use of plantations for leisure activities.

At the same time, increasing areas of plantation were being harvested and replanted. Calls for more processing facilities to be established in Co. Leitrim were made regularly, and in the 1990s a new processing plant was established by Masonite in the town of Drumsna in Co. Leitrim.
The use of roads for transport of logs and wood products was an ongoing source of tension in the region from at least the 1980s, with frequent concerns expressed over the maintenance of the County’s poor quality roads.

From the brief history given above, it is clear that different types of concerns have been expressed about afforestation at different points in time, and that a number of different issues have arisen over afforestation. To analyse afforestation conflict in detail, specific conflicts occurring over afforestation were identified, and each analysed individually.
6.3 Identifying individual conflicts

A detailed explanation of the analysis used to identify individual conflicts is provided in Appendix 9. A summary of the analysis is provided here as context for the subsequent examination of individual conflicts.

As discussed previously, the first step in identifying individual conflicts was development of an in-depth narrative history of afforestation in the region. This narrative provided a ‘jumping off’ point for defining individual conflicts. A conflict was defined as an issue involving a combination of topics, actors and processes by which it was acted on that was distinct from other combinations.

From this analysis, six distinct afforestation conflicts were identified in Co. Leitrim during the time period studied (1968 to 2000). Several of these conflicts involved the same groups or individuals, but each involved a different set of concerns expressed through distinct processes.

Figure 6.7 shows the different conflicts, with some indication of the length of time over which they have been expressed. Where two conflicts are drawn as overlapping, this indicates they involved similar actors and/or issues. Arrows are used to indicate whether a conflict was ongoing either before or after the time period examined for a study.

Each of the six conflicts is described separately below. The analysis of each identifies how it has changed over time, and if the changes represent a successful change in the conflict. While each conflict is analysed separately, it needs to be kept in mind that each occurred in the context of other conflicts occurring at the same time. Therefore actions taken in one conflict had the potential to influence other conflicts occurring at the same time, or future conflicts. These inter-relationships are highlighted as far as possible in the history and analysis of each individual conflict.
Figure 6-7: Different conflicts identified over afforestation between 1968 and 2000 in Co. Leitrim
6.4 Conflict 1: Competition for agricultural land, 1960s to 1980s

Perhaps the most prominent conflict over afforestation in Co. Leitrim was the ongoing protests by farmers and rural communities over acquisition of land for afforestation by the State and, from the 1980s, by private companies. This conflict lasted for several decades, with a cycle of similar events repeating over time.

6.4.1 Information available on the conflict

Data on this conflict was drawn from a wide variety of sources. All interviewees from Co. Leitrim discussed the conflict, as did four others with broader experience of afforestation but no direct experience in Co. Leitrim. Interviewees included individuals who undertook afforestation and who protested against afforestation, as well as some observers not directly involved, and represented the full spectrum of views identified in the conflict.

Interviewees were usually able to recall the broad time at which different types of events occurred, and to identify when overall shifts in attitudes and actions taken as part of the conflict. However, interviewees were generally not able to recall specific dates and timing of events, so documentary sources were used to identify these and to source observations about the nature of conflict recorded at the time particular protests occurred.

The Leitrim Observer reported in detail on many protests and issues, although its coverage was not complete. Documentation of a number of other protests was found in reports held in the County library. In addition, some concerns were discussed in the Dail.

6.4.2 History of the conflict

The events influencing this conflict began during English rule over Ireland, when resentment over afforestation by landlords became strong among many Irish tenants (Neeson 1991). This resentment was expressed through clearance of many trees when land was returned to the Irish (Neeson 1991: 118).

The history of occupation and of return of land to the Irish also led to other pressures which would substantially influence this conflict. In particular, as discussed earlier and
in Appendix 8, many Irish farmers were provided only small parcels of land, sometimes including multiple blocks of land not adjoining each other. Farm sizes were often too small to support farmers and their families, and right through to the 1980s a key role of the Irish Land Commission was to redistribute land to achieve viable holdings. When afforestation began to be undertaken by the State, it had to be undertaken on land purchased back from farmers. This land was generally rejected by the Land Commission prior to being used by the Forestry Division (then part of the same Department as the Land Commission) for afforestation.

This process led from the earliest times of afforestation to concerns that the land being afforested could instead have been used to help enlarge the holdings of smallholders. Attempts to purchase only marginal land by offering very low prices led to criticism that landholders received unfairly low prices for land they sold to the State (DE 27/6/1934 Vol. 53:1171-1172).

When afforestation began on a large scale in Co. Leitrim in the 1950s, these pressures led to the expression of concern over afforestation:

... there is a lot of anti-afforestation feeling in Leitrim and a lot of it goes back to the history of the Plantations, you know, and the feeling that they [those undertaking afforestation] were like the landlords. Because the State forestry came in and bought land for very small amount of money. They had no consultation, they planted right along the banks of the river ... they planted up to people's houses, you know ... they didn't put in any broadleaf trees ... generally speaking they did whatever they wanted to. (Leitrim resident # L3)

Public expression of concern over afforestation occurred in three distinct stages:

- 1950s to 1960s: Concern but not open conflict;
- 1970s: Conflict over State afforestation; and
- 1980s: Conflict over private sector afforestation.

While taking somewhat different forms, the nature of the concerns expressed were identical across these three conflicts, and the participants were broadly similar.
1950s to 1960s: Concerns expressed

Resistance to afforestation from farmers was reported from the beginning of afforestation in the West of Ireland in the 1950s. The concerns expressed about afforestation were dominated by concern that land that could be used for agriculture was being planted when it could have been used to expand smallholder’s properties and thus help them out of what was often severe poverty. However, a number of other, often related issues were also raised:

- Concerns about lack of consultation with farmers prior to land being identified by the Land Commission as suitable for afforestation (and hence taken out of the pool of land for redistribution to farmers);
- Disputes over fencing between afforested areas and farming areas, with concerns about increased numbers of vermin (foxes and rabbits) living in plantations and about stock straying into plantations as the State did not maintain fences; and
- Concerns that the price paid by the State for land was too low.

One interviewee said, however, that resistance to afforestation stemmed from a more fundamental cultural source; the importance attached to the Irish owning their land:

The days of the landlords were still in everybody’s mind ... it is hard to describe how important it was that the Irish own their land, the land he owned meant everything to a farmer and all he wanted was to be given the means to stay on the land, which usually meant he needed to acquire more land. (Leitrim rural resident # L3)

The strong desire for expansion of properties led to afforestation being used as a strategy in disputes between neighbours. In some cases, a farmer who was in dispute with their neighbouring farmer chose to sell their land for afforestation rather than to their neighbour, leading to conflict over the afforestation. This was described by five interviewees, including two critics of afforestation, and in Breedveld et al. (1977):

One problem I meet is that very often people may not be on the best terms with their neighbours and, because they are not, they will offer their bit of land to the Forestry Division ... (Deputy McLaughlin speaking in the Dail about afforestation in Leitrim, DE 24/3/1971 Vol. 252: 1160)

In Co. Leitrim, planting rates began to rise in the late 1950s, and around 450-500 hectares was afforested annually through the 1960s and early 1970s. There is
considerable evidence of negative attitudes towards afforestation in Leitrim in the late 1960s (e.g. DE 12/6/1963 Vol 203: 859-860; LO 12/10/68: 5; LO 4/10/69: 1). However, no physical protests or actions beyond expressions of concern and contact with Government departments and politicians was either discussed by interviewees or found in the documents examined.\(^{118}\)

All interviewees stressed that during this period farmers were encouraged to sell their ‘waste’ land for afforestation, and that there was some resentment of the low prices paid but a belief that the afforestation provided much needed jobs and so, despite concerns, broad scale protests did not generally occur.

1970s: Conflict over State afforestation

The turning point in concerns over afforestation came when in 1969 the Minister for Lands, Mr S. Flanagan, stated in the Dail that he wanted the Forestry Division to ‘make an all out drive to acquire land in County Leitrim’ in ‘acceptance of the fact that most of the land in Leitrim is not suitable for development in agriculture’ (DE 20/11/1969 Vol. 242: 1413).

Widespread outrage was expressed by residents of Co. Leitrim at the implication that agriculture was not viable in the County, as well as fear that people of Leitrim – already rapidly declining in number – would be encouraged to leave (see for example LO 6/12/69: 10; LO 25/7/70: 15).

The following conflicts were centred on two related issues of disagreement: whether land that could be used for agriculture was instead being afforested; and whether farmers were being given first option to acquire land before it went for afforestation.

Maury (unpub: 155-157) documented steps taken by North Leitrim residents after the Minister’s 1969 announcement to try to address concerns over the proposed afforestation:

\(^{118}\) It should be pointed out that issues of the Observer were not examined for this time period due to difficulty accessing issues from this time. However, as reference to protests was not found in other documents or reported by interviewees living in the region at the time, it seems likely that few protests if any occurred of the type seen in the region from the 1970s.
The announcement was met with heated objections from local people, and was followed by a meeting, in January 1970, between the Minister and a delegation from the North Leitrim Development Group in Dublin, a voluntary association of North Leitrim people living in Dublin ... The delegation was assured that no lands suitable for agriculture would be planted. This assurance was for some reason not kept\(^{119}\), and later, in July 1971, a larger delegation consisting of representatives from the Group in Dublin, and people living in various localities in North Leitrim, met with officials of the Department to register their objections and give their recommendations for a policy of land acquisition by the Forest Service\(^{120}\). The meeting brought little apparent result ... This meeting was followed by another with the official representative of the Department of Agriculture, with similar results. It appeared that neither department wanted to take responsibility.

Concerns from North Leitrim residents were again discussed by the Minister for Lands, Mr Flanagan, in the Dail in November 1971 (LO 27/11/71: 10). This prompted a report on the matter from the Department of Lands, at the conclusion of which the Minister for Lands sent a letter to Deputy Paddy Delap (representing North Leitrim) reassuring again that the Forestry Division maintained close liaison with the Land Commission to ensure good agricultural land was not purchased for afforestation (LO 11/12/71: 9).

Similar exchanges occurred in 1972 and 1973. When asked if farmers were consulted prior to the government acquiring land for afforestation, the Minister emphasised that consultation occurred with the Land Commission prior to acquiring land for afforestation, but confirmed that consultation was not undertaken with farmers (LO 4/3/72: 15; DE 22/2/1972 Vol. 259: 33; DE 4/7/1973 Vol. 267:244-245).

In the 1970s, afforestation rates dropped throughout Ireland, as described earlier. While rising land prices played a part in this drop, in Co. Leitrim the steep fall in afforestation was also clearly a response to the protests over afforestation which were occurring on a regular basis.

\(^{119}\) Note that this statement by Maury is a source of contention; much of the conflict centred over whether afforestation was occurring on land which could be used for agriculture, and some would disagree with her statement that land suitable for agriculture was afforested.

\(^{120}\) Reference was also found in records of Dail debates to a visit from a deputation from Leitrim in July 1971 to raise concerns about land being purchased for afforestation without giving farmers first option to purchase it (DE 29/7/1971 Vol. 255: 2929-2930).
Feeling their concerns were not being responded to, farmers (most residents of Leitrim were from farming families, with only a small proportion of the population living in towns) decided to physically protest against afforestation. They blockaded and picketed properties that had been acquired for afforestation, preventing afforestation from occurring:

... local farmers suddenly woke up to the fact that land suitable for other things was being used and would be lost to farming for many generations, possibly for ever ... The forestry workers arrived with their ploughs and bulldozers at a number of places to find scores of local farmers, armed only with their hand tools (and their tongues), who refused to allow access to the land scheduled for afforestation ... these happenings were repeated in many different parts of North Leitrim. Finally the Forestry Division handed over – or sold – the land to the Land Commission. (LO 6/5/78: 12)

At least initially, the Forestry Division responded to this type of action by trying to undertake work at times when protests were least likely to occur:

Where Forestry expected difficulties when ploughing disputed land, they ploughed in a few cases at six o'clock in the morning. Machines were brought out late in the evening, and the land was ploughed early the next morning before farmers were on the land. These “tricks” weren’t appreciated at all by local people. (Breedveld et al. 1977: 143)

A cycle soon settled into place in which land would be acquired by the Forestry Division for afforestation; local farmers would find out this had occurred and would physically blockade workers from entering the property being prepared for afforestation. This protest was generally effective in achieving some dialogue with the Forestry Division at public meetings in which government representatives and members of the farming community and local community discussed the issues, and by submissions and delegations to representatives in the Dail and Seanad and to relevant Ministers calling for changes to be implemented.

It was not always possible to identify the outcomes of individual disputes. Some properties were planted; in other cases the State decided not to afforest a property after protest occurred. Two interviewees stated that in the late 1970s it was common for the State not to proceed with planting after protest occurred, and for land to be acquired instead by local farmers.
Four interviewees discussed, and disagreed about, the level of consultation that took place during this time between the Land Commission, the Forestry Division (later the Department of Fisheries and Forestry) and farmers. Two believed that the State developed better consultation processes, while the other two commenting on this period believed that the State simply gave in and stopped planting, and that this was not a result of improved consultation but simply because planting was directed to other areas instead of the problematic Co. Leitrim.

Breedveld et al. (1977) recorded that, by 1976, some actions had been taken which improved perceptions of afforestation. In particular, locals interviewed by the authors around Drumkeeran and Dromahaire reported that, originally, when land was purchased by the State for afforestation, people were asked to shift out of their houses on the afforested land, whereas by the time the study was undertaken in 1976, they were often able to keep their house and some surrounding land and remain living in the area.

By the end of the 1970s, with State planting substantially reduced due to higher land prices as well as conflict over afforestation, increasing interest began to occur in the concept of private afforestation.

1980s: Conflict over private afforestation

The interest in private forestry was further stimulated by a new group announcing the introduction of a leasing scheme, in which farmers would be provided with an annual payment for providing land for afforestation (LO 21/8/78: 3). In May 1979, the company – Irish Tree Farmers Ltd – planted its first tree, having already organised the planting of 100 acres in its first year (LO 5/5/79: 1). Support for this concept of private leasing and farmer based afforestation was expressed in the media during the first half of 1980 (e.g. LO 10/5/80: 15; LO 7/6/80: 12).

In 1980 the formation of Irish Woodland Investments (WI) was announced. WI purchased and planted land on behalf of Allied Irish Investment Bank and Irish Life, both pension fund managers (LO 15/11/80: 1). Rather than leasing land from farmers, they purchased land outright.
The Leitrim County Committee of Agriculture (LCCA) soon expressed concern about lack of regulation of private forestry and ‘about indiscriminate tree-planting operations being undertaken by private interests throughout the County’ (LO 15/11/80: 1).

The protests against private afforestation were again driven by concerns that rural decline was occurring as a result of farmers being unable to expand their holdings to make them viable:

... as should be obvious to everyone because successive Governments have been totally inept and incapable of solving the Agricultural and Social problems of counties like Leitrim, they have decided upon the easy option and intend to plant them. (Letter to the Editor LO 2/11/1985: 12)

The first documentation of serious conflict came in 1981 when farmers were accused by WI of uprooting trees on a property WI was afforesting against the farmer’s wishes. The charges were dismissed (LO 14/2/81: 12).

From 1982, concern over private afforestation became so serious that blockades of properties began again. Multiple disputes occurred through the early and mid 1980s over private afforestation, most following a similar chain of events. A series of individual disputes are documented in Appendix 8, and the following quote describes the feelings reported by many Co. Leitrim farmers that led to protests about afforestation:

... for the first five years of [the Western Package] no farmer availed of it ... it was only financial houses in the east of the country, pension funds, AIB, Irish Life Insurance, those kind of things that could see the benefits of forestry for giving a mixed portfolio ... and you had the agents for these people that were if you like, ah, ruthless is the wrong word but certainly their bedside manner left a lot to be desired in the way that they acquired land ... now these agents from AIB and that went out and bought this land and you were hoping, if you were a small farmer, that this [land] was going to be divided soon [by the Land Commission] and you’ll get a consolidated holding and your son would be able to stay here, like, on the farm – and instead you woke up some morning and there was some machines cut there plantin’ trees on it – you went crazy because you had been promised this land, you know what I mean? (Farming sector respondent # L3)

A typical dispute involved workers undertaking afforestation-related work on a property purchased by WI, or another company. Local farmers, residents and often local county councillors and representatives of the Irish Farmer’s Association (IFA) then blockaded the property to prevent work going ahead, calling on the government to prevent the
afforestation. The blockades often continued for several days. This prevented work – usually the preparation of the property for planting – from being undertaken. These protests were usually accompanied by concerns being raised about the proposed afforestation at local Land Commission offices and public meetings, and by lobbying of key government representatives and Ministers responsible for agriculture and forestry.

In the highest profile protests, WI brought charges or sought injunctions against protestors, with the resulting court cases attracting high profile media attention in local and national media. Most famously, WI brought a court case against several prominent protestors who had blockaded WI properties, including some prominent local and national politicians, in the High Court in Dublin.

The media played a major role in the conflict, with the Observer and sometimes the national media used to both raise concerns and to present rebuttals by representatives of the afforestation companies, particularly WI.

A key difference between these protests and those that had occurred previously over properties acquired by the State was that properties had been purchased by WI for afforestation. Whereas land acquired by the State could be relatively easily transferred back to the Land Commission for distribution to farmers, the same was not true of properties purchased by WI on the open market.

However, the Land Commission did play a role in some disputes, being asked by farmers in early years to investigate whether WI should have been allow to purchase properties instead of the properties being acquired by the government for redistribution to farmers. In 1982, the Commission decided to acquire some land that had been purchased by WI, a decision fought by WI in the courts through several appeals, until the Supreme Court found for WI in 1984 (Supreme Court 1984). The role of the Land Commission diminished after the announcement in 1984 that it would be disbanded, although it took several years for the Commission to cease activities.

While considerable ongoing conflict was occurring in relation to WI’s activities, relatively few protests occurred in relation to another company, Greenbelt, which was also undertaking afforestation in Co. Leitrim. While not afforesting as large an area at
the time as WI, Greenbelt similarly planted land on behalf of private investors. However, it consistently faced a smaller number of protests than WI.

Five interviewees, all with direct experience either as employees of one of the two companies, or in protesting afforestation at the time, agreed that the difference in the level of protest was a direct result of a substantial difference in the way the two companies undertook the process of acquiring and planting land.

WI, according to all five interviewees, had a less consultative approach than Greenbelt. WI would generally purchase land and prepare to afforest it without first discussing their plans with neighbours. Greenbelt, however, spent considerable time identifying whether any local farmers wished to purchase land before negotiating purchase on behalf of an investor, and more time consulting with locals. This consultation sometimes led to actions such as land swaps, where Greenbelt and a nearby farmer would organise to swap parts of their properties to provide the farmer with a better holding while Greenbelt still obtained the same area of land overall for afforestation.

As well as this difference in consultation when acquiring land and planning afforestation, when protests occurred WI often called the Gardai\(^{121}\) and sometimes took protestors to court. Greenbelt, however, was more likely to organise a direct negotiation with people expressing concerns and find a solution such as a land swap. Therefore while some protests did occur over Greenbelt plantings, they tended not to escalate into highly publicised disputes.

As well as these two differences, four interviewees believed the individuals involved from the two companies had a significant influence on the level of conflict that occurred, with some WI individuals described by all as inflaming conflict by the type of actions they took including lack of consultation and threatening court action when concerns were raised.

In late 1985, a rapid series of protests occurred over afforestation by private companies:

> Fears are growing over forest planting in Leitrim again and it has been revealed that over 700 acres of land has been purchased by private forest developers mostly in South Leitrim areas. To

\(^{121}\) Police
Again, the actions taken in the conflict involved picketing farms where afforestation work was being undertaken, sending deputations to make representations to key Ministers with responsibility for agriculture and forestry, public meetings and media reports. However, at this point four interviewees said that conflict escalated as Sinn Fein\textsuperscript{122} members became highly involved and encouraged agitation against afforestation. Two of these interviewees also reported that there was some Irish Republican Army (IRA) involvement encouraging resistance to afforestation\textsuperscript{123}. At this time there were also reports of physical threats being made against farmers who sold their property for afforestation, although only three interviewees described this and all but one had heard of threats second hand rather than through direct communication with farmers experiencing this type of intimidation.

Whereas protests had previously involved informal coalitions of local farmers, local county councillors and IFA representatives, now a formal protest group developed. The ‘Concerned Farmers and People of County Leitrim Against Private Forestry Organisation’, later referred to as the ‘Concerned Farmers and People of Leitrim Against Private Afforestation’\textsuperscript{124}, was established as a result of a public meeting held early in 1986.

In March 1986, the conflict over afforestation escalated to its highest point when tree planting machinery was damaged in an arson attack, causing tens of thousands of pounds of damage to the machinery. The Concerned Farmers, LCC, IFA and others condemned the attack, calling for peaceful resistance to afforestation.

\textsuperscript{122} The Irish republican political movement founded in the early 1900s with a goal of achieving independence from England and unification of Ireland. Sinn Fein later became the political branch of the Irish Republican Army (IRA).

\textsuperscript{123} Both interview respondents asked not to be identified by their role in relation to afforestation conflict or to be quoted directly with regard to their statement about the IRA; as such, no direct quotes related to this are included in the thesis.

\textsuperscript{124} Referred to from here on as the ‘Concerned Farmers’ organisation.
After the arson attack, conflict in the form of blockades, protests and public meetings occurred much more rarely. This decline occurred despite an increase in afforestation rates in Co. Leitrim from 1987 onwards, as can be seen in Figure 6.4. Those involved in the afforestation sector reported that the reduction in protest was a result of two changes:

- Improved consultation between afforestation companies and farmers, accompanied by actions to meet the needs of both parties; and

- The introduction of annuities for farm forestry leading to farmers afforesting their land.

A key call made by critics of afforestation was for formal public notification of intent to afforest land. From around the mid-1980s, private afforestation companies tended to provide informal notification of intent to purchase land for afforestation, and to negotiate directly with landholders expressing concerns prior to afforestation occurring. In some cases this had already been occurring to some extent, but from 1986 the IFA became more directly involved, often sitting down with farmers and the afforestation companies to actively assist negotiations and seek solutions such as land swaps, setting back trees where they might shade nearby homes once they grew, and making agreements about how costs of boundary fencing would be shared. This increasingly occurred prior to afforestation taking place.

Three afforestation company employees working in the region during the late 1980s, as well as two interviewees involved in protesting against afforestation and one afforestation investor, believed the IFA’s role was crucial in changing conflict:

... the IFA got involved on behalf of farmers, they started saying that they wouldn’t allow their members to be trampled on ... a lot of the companies like Woodland and Greenbelt they did start to you know negotiate more ... and so it developed from there, by the time 1990 had come I suppose things had got more developed, the IFA were more sure of themselves and farmers weren’t as scared, they began to relax and realise that, you know, that it would be done properly.

125 It was not until the 1990s that formal notification of applications to afforest land began to take place. At some point in the latter half of the 1990s, the Forest Service began publishing notification of applications to afforest in local newspapers; additionally, notification was published online on the Forest Service website (see http://marine.gov.ie, or LO 9/12/98: 1,3; LO 16/8/2000: 10 examples of notification). The notifications are published for any areas in excess of 2.5 hectares for which grant aid is applied, and provides details of the location and area but not names of individuals or properties.
that there would be negotiations and they would get some, you know, some bit of maybe the land that they were looking for near them. (Local government respondent # L2)

Two respondents also believed that the IFA reduced conflict by actively ‘sidelining’ some of the more strident protestors who wanted physical protests to occur. One afforestation sector interviewee, however, believed the IFA’s role was less important.

All interviewees from the afforestation sector reported that this increased consultation led to decreased conflict, as did most local government, farming sector and rural residents interviewed.

The second factor reportedly reducing conflict was the introduction in 1986 of annual payments for farmers who undertook afforestation on their own properties, as part of the Western Package. During the early 1980s, ongoing concern had been expressed about the lack of take-up by farmers of grants made available for afforestation under the ‘Western Package’, a European Union package of funding for disadvantaged areas. While these grants covered a large proportion of the costs of establishing a plantation, they did not provide subsequent income while the trees grew, and as a result very few farmers took advantage of them. From 1986, annual payments – called ‘premiums’ were made available by the government. Since this time, some form of annual payment has been available for afforested areas for at least 15 years after first planting\(^{126}\) as well as grants to cover a large proportion of the cost of establishing trees. This led to increased opportunity for farmers, rather than only the State and private companies, to undertake afforestation, and as farmers were now planting trees themselves, it arguably led to decreased conflict over afforestation.

Interviewees who had been involved in protesting against afforestation agreed that these two factors – improved consultation, and the introduction of improved incentives for farm forestry – were a large part of the reason for the fall in conflict after 1986. Interviewees who had protested afforestation in some of the pickets of the early 1980s described how, once local farmers began taking up farm forestry in Co. Leitrim, protests about afforestation decreased:

\(^{126}\) As long as they meet appropriate criteria including the type of species planted, as described in Appendix 8.
Because you couldn't protest when it was a local doing it ... we still didn't like the trees going in, but you didn't want to stop a farmer from making a living ...(Leitrim rural resident # L3)

In addition, farm forestry respondents believed that farmers began to view afforestation more positively now they had more incentives available to them to establish plantations:

... there has been a gradual change in the response of farmers to forestry ... the farming organisations ... were anti-forestry, there is no getting away from it, the farmer's organisations, the IFA, the ICMSA, and indeed Teagasc, they were anti-forestry at the outset and that was understandable because they were primarily agriculturalists, and agriculture was a way of life for the previous hundred years since we got the land into the hands of the peasants in the 1800s ...

so it was understandable in a country like ours with a lot of agriculture that they would be anti-forestry, and they were, now that is slowly but surely being changed, farmers are beginning to see forestry as another option. (Farm forestry respondent # L1)

However, they discussed other influences as well. Three protestors said the reduction in the number of blockades and protests resulted from concern over the extent to which conflict had escalated in the 1980s. The arson attack was identified by two prominent protestors as a turning point in this conflict. While the same concerns were still held by those who had protested, key critics of afforestation actively tried to reduce the involvement of particular individuals who had been encouraging physical demonstrations and, possibly, condoning intimidation and vandalism such as the arson attack. They encouraged concerns about afforestation to be expressed through lobbying and meetings instead of physical blockades of farms.

By the early 1990s, physical protests had all but stopped. Most interviewees identified this as the point where the 'traditional' conflict over afforestation died down. One protestors, however, emphasised that it should be understood that afforestation was not liked or desired, even though conflict had decreased. Afforestation was seen now as a useful enterprise for farmers which, while disliked, they should be allowed to undertake, and some of the key issues resulting in conflict had been addressed through improved consultation.

From this point on, the way afforestation occurred changed dramatically, as did the nature of conflict over afforestation. This point was, effectively, an end to conflict being expressed in the particular forms described above, even though the same actors
continued expressing a somewhat different set of concerns through different mechanisms, described in the next conflict.

6.4.3 Did positive change occur in the conflict?

Overall, there was a clear change in the conflict, and much of this change was positive, although concerns over afforestation remained. The key factors leading to change were a combination of improved communication and changed practices — including both changes to how companies purchased land and undertook afforestation, and the opportunities for farmers to afforest their land using government grants and annuities.

Outcome-based evaluation

Media reports of this type of conflict dropped substantially after 1986, as can be seen from Figure 6.8 which shows the number of articles and letters in the Observer reporting four key concerns that formed part of this conflict. The number of reports of these four key concerns fell substantially after 1987 and never returned to the levels seen during the intense conflict of the early and mid 1980s.

While this would on the surface indicate a positive change in conflict, it is important to qualify the outcome by pointing out that many critics of afforestation still held concerns about afforestation after this time, even though they were not expressed in ways that attracted as much media attention.
Figure 6-8: Number of articles and letters published in the Leitrim Observer that discussed key concerns forming part of conflict over competition for agricultural land in Co. Leitrim
Process-based evaluation

This outcome can be linked to a change in processes by which conflict was expressed. By the late 1980s, residents and farmers had considerably more opportunity to express concerns to afforestation companies when land was being purchased and afforestation was taking place. While these consultation processes were informal, they were discussed by the large majority of respondents as a key factor reducing conflict. In addition, key critics were actively encouraging concerns to be expressed through less overt protest mechanisms, concerned about the intensity conflict had reached in the region.

Relationship-based evaluation

Relationships between different parties to the conflict may have improved somewhat as a result of these improved processes, and were reported to be better in some cases. However, a high degree of antipathy still existed between some parties despite a reduction in overt expressions of protest about afforestation.

Transformation-based evaluation

The underlying causes of this conflict clearly went back to the deeply held desire for farmers to have control over their land, and to be able to make an adequate living from their land. Outsiders coming in to purchase land were viewed very negatively as a result, as was any action believed to reduce viability of farming or to reduce the opportunities for farmers to expand their holdings or swap their existing land for more viable land. Two interview respondents believed that gradual improvements in the overall standard of living for many Irish people and changes in priorities have gradually changed these priorities in rural areas, although it is debatable whether this was having an impact on this particular conflict in the late 1980s with most improvements in living standards and changes in the composition of rural communities occurring from the 1990s onwards.

Goal-based evaluation

The goals of those protesting afforestation were slightly different depending on the group examined. Farmers tended to call for opportunities for farmers to undertake
afforestation, rather than ‘outsiders’ or ‘big corporations’. These opportunities were provided from the late 1980s, via annual payments for afforested land from the EU and Irish government. Other protestors wanted afforestation to stop altogether – for example, the Concerned Farmers organisation called for a ban on afforestation. These goals were not achieved.

6.4.4 Event history analysis

The events of this conflict can be split into two phases, which are shown as two sequential sets of events in Figures 6.9 and 6.10. Each phase shows a similar pattern, although with different outcomes. The first phase involved State afforestation, and conflict died down when the State reduced afforestation. The same issues occurred again when afforestation began to occur in the early 1980s, this time undertaken by private afforestation companies. This time conflict escalated further than previously, but and died down after the introduction of annual payments allowing farmers to undertake afforestation as well as the private companies, and improved consultation and negotiations over land acquisition and afforestation between afforestation companies and landholders.

The sequence of causal events runs across the two diagrams. The antecedent influences on conflict were clearly the pressures triggered by the association of afforestation with occupation of the land, and by the problems of congestion and small properties which made it imperative for farmers to try to obtain more holdings to stay viable.

When afforestation was then undertaken, similar feedback loops of repetitive events occurred in (a) the era of State afforestation and (b) the era of private afforestation. With a lack of prior consultation, farmers and residents picketed land or otherwise protested afforestation in several cases, calling for increased consultation and for farmers to be given the option of acquiring land before it was allowed to be afforested. While some changes were sometimes made by the State/private companies, these did not satisfy many critics in many cases, or came after considerable protest about a property.

In the case of State afforestation, conflict fell only when rates of afforestation fell close to zero. In the case of private afforestation, conflict changed when three parallel sets of events occurred: an escalation of conflict involving arson followed by active attempts to
calm conflict by many of the critics of afforestation; improved consultation by private companies prior to afforestation; and the introduction of annuities that enabled farmers for the first time to undertake afforestation while receiving an annual income for the land being used to grow a plantation.

All of these clearly played some role in reducing conflict; it is not possible to identify which was most important or if/how much conflict might have changed if only one or two, rather than all three, of these events occurred.
Land redistribution to Irish after era of landlords results in many farmers holding multiple small parcels of land, often too small to support their family. The Irish Land Commission works to redistribute land to improve holdings.

The Irish government purchases land for afforestation; the West begins to be afforested from the 1950s and Co. Leitrim from the 1960s.

Co. Leitrim afforestation attracts limited concern for some years, until a plan is announced for large-scale afforestation in the County.

Properties are acquired by the State and work begins to prepare them for afforestation.

Some changes made by the State, but they do not satisfy critics.

Farmers and residents picket properties, lobby politicians and government and hold public meetings protesting afforestation.

Calls are made for improved consultation with farmers before land is approved for afforestation; and for farmers to be given first rights to land.

The government largely stops afforestation.

Figure 6-9: Event history analysis of conflict over State afforestation in the 1970s in Co. Leitrim.

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Private afforestation begins to occur, with companies purchasing land for afforestation

Concerns are expressed about private afforestation, with farmers calling for land to be offered to farmers before being approved for afforestation

Properties are acquired by private companies and work begins to prepare them for afforestation

Some changes made by the companies, but they do not satisfy critics

Farmers and residents pocket properties, lobby politicians and government and hold public meetings protesting afforestation.

Calls are made for improved consultation with farmers before land is approved for afforestation; and for farmers to be given first rights to land

Escalation to some cases of intimidation, threats, and an arson attack

Efforts made by some protestors to de-escalate conflict

Increased consultation with farmers and neighbours prior to purchasing properties and undertaking afforestation

Government introduces annuity payments for afforestation, in addition to grants already available

Farmers begin to undertake afforestation on their own properties

Figure 6-10: Event history analysis of conflict over private afforestation in the 1980s in Co. Leitrim
6.5 Conflict 2: Afforestation incentives

From the late 1980s onward, conflict over afforestation changed substantially. Previously, a single concern had dominated afforestation conflict – that agricultural land was needed by farmers. While other concerns existed, they were not nearly as prominent. Now a range of issues developed into distinct disputes, while old conflicts sometimes continued, albeit often through new forums.

Conflict over the social impacts of afforestation continued but, with farmers now able to participate in afforestation much more effectively, the content of the conflict shifted substantially. Disagreements now focussed on whether the afforestation grants and premiums paid were high enough, and whether the non-farmers\textsuperscript{127} who were undertaking afforestation had an unfair advantage over farmers in the land market.

6.5.1 Information available on the conflict

Information on this conflict was drawn primarily from interviews, documents detailing changes to grant and premium levels over time, and media articles. The latter included articles from the Observer, the Irish Farmers Journal, and The Irish Times, as this issue tended to be expressed at a national scale, rather than being confined to Co. Leitrim.

The majority of people interviewed discussed this conflict, including representatives from the farming sector (including the IFA and farm forestry co-operatives), and those employed in the afforestation sector. Local government interviewees tended to discuss perceived social impacts of expanding afforestation but did not generally discuss the concerns over grant and premium payments\textsuperscript{128} that formed a large part of the conflict.

While detailed information was gathered, there were many different events forming part of the conflict, not all of which could be documented. Interviewees tended to identify common types or patterns of events, for example repetitive calls from the IFA for non-farmers to receive lower (or no) annuity payments for afforestation, rather than

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\textsuperscript{127} The term ‘non-farmers’ was generally used to refer to Coillte Teoranta, the semi-State forestry agency created in 1988 as a government owned business, and to private afforestation companies.

\textsuperscript{128} The term ‘grant’ refers to the grants paid by the European Union (EU) and Irish government to cover a large part of the costs of establishing plantations, while ‘premium’ refers to the annuity paid each year to people with eligible plantations.
pinpointing exact events and their timing. The history given below and in Appendix 8 reflects this, describing general trends and providing specific examples of each rather than attempting to document every event of a similar nature.

6.5.2 History of the conflict

Private afforestation rates began to increase dramatically from 1986 onwards throughout Ireland, after annual payments were provided by the EU and Irish government for afforestation by both farmers and non-farmers.

While some new private investment organisations were established\(^{129}\), much of this private sector afforestation was undertaken by farmers rather than by businesses established specifically to establish and manage plantations. Most farmers had relatively little knowledge about tree planting, and a range of support mechanisms including training courses, new farm forestry co-operatives and advisors, were introduced during the 1990s by the government and by the IFA\(^{130}\). Ongoing expansion of farm forestry co-operatives was occurring under the umbrella of the WFC that had been established since 1984 (LO 29/7/89: 8):

\[ \ldots \text{we’re trying to work through this situation of bringing farmers in from agriculture knowing very little if anything about forestry, and we want to try and educate them and we want to get them to plant, and we want to get them in a position where they’re able to have income on their farms through what is a generous farm grant system. (Farm forestry respondent # L1)}\]

\[ \ldots \text{we make sure that any contractors we give a job to … source their materials and their labour locally, because we want – the big complaint about forestry is that it leaves nothing in the area but the trees that are growing. We’re trying to make sure that whatever wealth is generated, that it stays as far as possible in the area where the trees are growing … (Farm forestry representative # L2)}\]

\(^{129}\) For example, the Irish Forestry Fund, in which investors could purchase shares in plantings via an annual prospectus, was launched in 1988 (LO 12/11/88: 9).

\(^{130}\) The IFA Farm Forestry Section also implemented a range of actions to assist farmers who took up afforestation, including publishing a standard contract in June 1995, the Master Forestry Contract, to use when engaging firms to undertake afforestation-related work and warning farmers to be cautious when contracting work (LO 14/9/94: 6; IFA Farm Forestry Section n.d.; LO 22/5/96 Farming Supplement: 2). The Master Forestry Contract ‘seeks to eliminate unnecessary conflict and to avoid confusion between the farmer planter and the contracting company’ (LO 24/1/96 p6). In 1994, the IFA launched a farm forestry section, ‘a national representative forum for all farm foresters who are full members of IFA’s national structure’ (LO 1/6/94: 1).
By 1994, over 5,000 farmers across Ireland had afforested part of their land (LO 24/8/94:7). Planting by afforestation companies also continued, and from 1988 the semi-State agency Coillte\textsuperscript{131} also undertook afforestation both through direct purchase of land, and through a farm forestry partnership scheme with farmers.

The increase in farmer afforestation occurred in a context of continuing agricultural change. The total number of family farms was falling rapidly, with a drop of 3.7% in 1993-1994 alone (from 158,900 to 153,000 family farms) (DE 29/2/1996 Vol. 462:1080-1081). Farmers increasingly relied on receiving one or more of the various agricultural grants provided under the EU Common Agricultural Policy to make a living, and there were ongoing concerns over the unintended perverse impacts of the different agricultural grant schemes in operation for Irish farmers.

Despite the rapid shift to farmer-based afforestation, concerns that afforestation threatened the viability of agriculture were regularly expressed during the 1990s. The concerns focussed on two issues: concern over rising land prices believed to result from land purchase by non-farmers, including those undertaking afforestation; and concern over the level of available afforestation grants and premiums (e.g. LO 20/2/91:9; DE 10/3/1992 Vol. 417: 307-308; DE 29/6/1993 Vol. 433: 81-82; MacConnell 4/10/93).

The conflict that emerged over these issues was considerably less intense than the conflict that had previously occurred over State and then private sector afforestation. There were few public reports of disputes, with concerns expressed via calls in the media and submissions to government from organisations such as the IFA for increases in grants and premiums, rather than through direct protest.

For example, in 1991 the IFA called on the Minister for Energy, Mr Molloy, to raise the off-farm income threshold for eligibility for the Forestry Premium, so that farmers with a higher off-farm income could receive payments for afforesting their land (LO 24/4/91:9). It also on an ongoing basis fought for farmers who had afforested under the

\textsuperscript{131}By this time, the Department of Fisheries and Forestry (up to 1986) had been renamed the Department of Tourism, Fisheries and Forestry (from 1986) and then, in 1988, split into Coillte, which managed State-owned plantations as a semi-State company, and the Forest Service, the government department responsible for regulating forestry and approving grant and premium payments for afforestation.
early grant and premium schemes to be eligible for increased premium payments when new rates of grants and premiums were announced\textsuperscript{132}.

However, this conflict really focussed on issues relating to land purchase and land availability.

From the early 1990s, increasing concern began to be expressed by the farming community about what was believed to be rapidly increasing demand for land from non-farmers. This was a concern related to land purchase in general rather than only to afforestation:

> It is clear that when agricultural land is offered for sale, far too often it is passing into the hands of absentee landlords with very stout cheque books. Local farmers anxious to buy this land have been disappointed on numerous occasions when they were outbid by the wealthy absentee landlords of the twentieth century ... (Deputy Sheehan, DE 4/5/1989 Vol. 389: 1267)

Coillte in particular was criticised by farmers, who believed Coillte purchased land for afforestation and then, when asked to sell it to local farmers instead of afforesting it, asked for a considerably higher price than they had paid. For example, a dispute occurred in Drumkeerin in Co. Leitrim in February 1992:

> A major row is brewing between Coillte and local farmers in Drumkeerin Co. Leitrim over plans by the Department to plant a 58 acre farm near the village. Local councillors are also outraged that attempts by four local farmers to buy back the land are being thwarted by what they call the exorbitant price per acre being asked for by Coillte ... (LO 19/2/92: 5)

Concerns were over more than simply how much land was bought or sold for. The debate over whether land should be used for afforestation or farming, common in the 1980s, continued. The difference was that now, the IFA and others in the farming community viewed farmer based afforestation as acceptable, and directed their criticisms at afforestation undertaken by non-farmers. Perhaps the greatest concern was expressed over the purchase of land for afforestation by 'non-nationals' (e.g. DE 17/10/1995 Vol. 457: 167-168).

\textsuperscript{132} This was an ongoing issue, with new grant and premiums rates announced at various times during the period examined (detailed in Appendix 8), and the IFA constantly arguing for those who had already planted to be paid to new rate of premiums rather than the lower rate they were eligible for at the time they afforested.
In 1994, the Taoiseach, Mr Reynolds, sparked debate in the national media when:

... he said he did not want to see good farmland being used for forestry by Coillte and others until all the badlands were planted first. (MacConnell 10/05/1994: 19)

The IFA president called on Mr Reynolds to ‘match his weekend statement with the adoption by the Government of a balanced land use policy which would protect farmers and rural communities’ (MacConnell 10/05/1994: 19) from non-farmer afforestation. Many foresters, meanwhile, rejected the Taoiseach’s call, arguing that the economics of afforesting marginal agricultural land were poor (The Irish Times 10/05/1994: 13; Convery 24/05/1994: 13).

Interestingly, some private forestry companies – notably Greenbelt – agreed with the IFA in its call for land to remain in farmer, rather than non-farmer (potentially foreign) ownership:

Tim O’Brien of Greenbelt Ltd., the country’s largest private forestry company ... said that it is in the interests of rural Ireland that land should remain (sic) in the farmer ownership rather than selling to non farmers ... and our national afforestation programme could be achieved if incentives were provided to farmers which were comparable to other crops. (LO 27/9/95: 6)

This type of debate was typical of the expression of this conflict.

Concerns in Leitrim commonly focussed on Coillte’s spending power when it purchased farms for afforestation (e.g. LO 24/7/96: 5; LO 24/7/96: 12):

Eighty percent of all afforestation in County Leitrim since 1990 has been carried out by Coillte, the State backed forestry company and other non-farmers, Mr John Winters, Chairman Leitrim FIA has claimed in a statement slamming the Minister for Agriculture for allowing Coillte to “swallow up” huge amounts of farmland for forestry. “... IFA is demanding that the Minister ensures that if forestry is to take place in an area that it is not to the detriment of local people”, said Mr Winters. (LO 24/7/96: 5)

Afforestation by non-farmers was rejected as it was believed to have a range of negative social impacts on local communities, including loss of population and associated impacts on neighbouring landholders such as shading of houses and crops (e.g. DE 11/10/1995 Vol 456: 1832-1833; DE 1/2/1996 Vol. 460: 2158-2159; DE 16/4/1996 Vol. 463: 2130-2131).
By the mid-1990s, the concerns over afforestation by non-farmers were being expressed with an accompanying call for grants and premiums to be targeted to farmers, rather than non-farmers - despite the grant and premium rates already being considerably higher for farmers than non-farmers (DE 27/6/1996 Vol. 467: 1871):

Forestry industry representatives and farming bodies have clashed again over whether farmers should have to compete with the business community for afforestation grants from the State and the European Union. In a submission to the Government, the Irish Forest Industry Chain (IFIC) said the farm lobby was being unreasonable. ... But the Irish Farmers' Association said its members simply could not compete. (MacCarthaigh 28/11/1996: 21)

The IFA began to call for grants and premiums to be stopped altogether for non-farmers, believing even the lower rates available for non-farmers created unacceptable competition for farmers (e.g. LO 20/11/1996: 13; LO 18/12/1996: 18; LO 3/6/98: 1).

Between 1992 and 1996, Leitrim had the highest proportion of non-farmer afforestation of any County in Ireland, at 49% of planting, followed by the nearby counties of Roscommon, Mayo, Cavan and Donegal (Gillmor 1998). As a result, calls by the IFA for a halt to non-farmer planting had particular prominence in the county.

The LCC expressed concerns over afforestation, particularly its perceived social consequences, and began its own calls for action. In particular, the LCC called for afforestation be made subject to planning permission, so they would have the power to approve or reject applications to afforest.

At this time, afforestation was only subject to planning permission if more than 200 hectares was to be afforested, later reduced to 70 hectares and, after 2000, 50 hectares. As the majority of new plantings were of less than 20 hectares, this rule almost never applied. Local governments were advised of proposed new afforestation by the Forest Service\textsuperscript{133}, the approving body for grant and premium payments, and allowed to raise concerns about the proposed afforestation for the Forest Service to consider. According to three interviewees, this assisted in reducing concerns in some, but certainly not all,

\textsuperscript{133} In 1988, when Coillte Teoranta was formed as the Semi-State forestry business managing State owned plantations, the Forest Service was formed as the government agency responsible for grant and premium payments and for regulation of forestry.
circumstances – largely depending on whether concerns raised by the local government about a proposal for afforestation were responded to.

The three main groups expressing concern over non-farmer afforestation were the IFA, the LCC and the League for Unplanned Forestry, a group established at an unknown point in the 1990s:

Concern at the serious effects of continued unplanned afforestation ... on the county was expressed at a meeting in the Central Hotel, Manorhamilton last week ... Addressing the meeting, Cllr Charlie Cullen spoke of the unease felt in the area at the continuing encroachment of afforestation ... The meeting head (sic) that currently householders are usually unaware that adjoining land is going to be planted until the machines arrive to commence mounding ... those present said that all [those undertaking] grant aided forest (sic.) should be made to apply for planning permission ... The IFA Forestry Committee was criticised at the meeting for failing to lobby the government to make all forestry subject to planning control. (LO 24/4/96: 10)

The IFA continued to call for non-farmers to be made ineligible for forestry grants and premia (e.g. LO 24/4/96: 10; LO 12/6/96: 9; LO 22/5/96 Farming Supplement: 2):

IFA Deputy President Michael Slattery called on the Government to redirect EU forest premium payments from State and corporate investors in order to level the playing pitch for farmers and other land owners who do not have the resources to compete on the land market either for agriculture or forestry purposes (LO 12/6/96: 9)

By the late 1990s there was some evidence that the concerns raised by the IFA, LCC and the League were being heard at a larger scale, with concerns raised in the Dail about ‘blanket planting’ believed to be preventing farmers expanding their holdings to make them viable (e.g. DE 27/11/1997 Vol. 483: 1099), and calls for afforestation to be subject to planning permission (DE 17/12/1997 Vol. 485: 769-770):

There has been an ongoing problem of large financial institutions bidding against local farmers for land to plant it with trees. Institutions are prepared to pay £1,600 or £1,700 per acre for afforestation. It is impossible for farmers to purchase it for farming at those prices. ... The net result of this sort of action will be depopulation, particularly in the western counties, in view of the crisis in farming. (Deputy Ellis speaking in the Dail; DE 17/12/1997 Vol. 485: 769-770)

In December 1997, farmers and residents from the Cloone-Garvagh area of Co. Leitrim held a meeting to discuss opposition to further afforestation in their area. The concerns raised about afforestation at the meeting included fears that plantation expansion led to
isolation of rural residents; reduced viability of farming; reduced likelihood of young people staying in the areas, and reduced tourism. In addition, the belief that the afforestation grants and premia were driving land speculation was expressed and calls made for afforestation to be subject to planning permission. Those attending the meeting decided to seek support of farming organisations and public representatives in the county 'to promote their case' (LO 31/12/1997: 1).

At some point in the mid to late-1990s, some environmental groups joined in calling for non-farmers to be made ineligible for grants and premia, although the exact timing of this entry of environmental groups into the debate could not be identified more precisely.

In 1998, there was further criticism of Coillte, with critics questioning whether it should be receiving premium payments at all. Coillte's chief executive called for better public communication by the forest industry, believing that a poor public image of forestry in Ireland was resulting from a failure to communicate clearly and with a common view (Scanlan 07/03/1998b).

In 1998, the European Court of Auditors announced it would investigate whether EU grant aid in the form of forestry premia should have been paid to Coillte, which is a Semi-State body, following formal complaints from the Friends of the Irish Environment and Environmental Watch Ireland that the premia were intended for farmers rather than government entities (McDonald 21/04/1998; DE 8/12/1998 Vol. 498: 164, Environment Watch Ireland n.d.).

In June 2000, it was reported that:

> Officials from the European Commission will press ahead with demands for the repayment of £6.5 million (€8.25 million) in forestry grants improperly paid to Coillte ... The move, which follows the failure of internal conciliation procedures to resolve the matter with the Government, is likely to be confirmed by the Commission shortly. ... The grants are a "loss of income" premium normally paid to farmers to assist them financially while their trees grow. Such payments are not supposed to be made to "public entities" and Coillte's dispute with the

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134 This complaint also raised a range of environmental concerns about afforestation, discussed further as part of the next conflict.
Commission arises from its definition as such. Coillte argues that it is covered by the phrase “any other private-law natural or legal person” in the relevant 1992 EU regulation (Smyth 22/06/2000: 19).

The Government lodged an appeal against the decision, with the appeal proceedings expected to take two years (DE 17/10/2000 Vol. 524: 343; DE 23/11/2000 Vol. 526: 1213). In 2001, the Minister stated that the amount being sought by the EU was £3.8 million, the amount paid to Coillte in forestry premia, not £6.5 million as previously reported; and confirmed that premia payments under Coillte’s Farm Partnership Scheme were not affected by the decision (DE 8/5/2001 Vol. 535: 1163-1164; DE 3/7/2001 Vol. 540: 213-214).

While these events were occurring at the national scale, supported by many in Leitrim, action was continuing at the local scale. In June 1998, following expression of concern that afforestation was leading to loss of traditional farms and of local services (LO 24/6/98: 1), farming representatives in Co. Leitrim and West Cavan drew up a six point plan calling for changes to afforestation including: that afforestation be subject to approval by the local authorities, and subject to formal planning permission where more than five hectares was afforested; that forestry grants be restricted to local farmers who earn income from farming; that an upper limit be set on the proportion of any region to be afforested; better enforcement of existing forestry guidelines; and for tax incentives for farmers in the Upper Shannon region (LO 24/6/98: 1).

In April 1999, the Leitrim IFA issued a statement of concern about afforestation:

Leitrim IFA has issued a very strong statement this week ... in total opposition to over-afforestation in the county ... Michael Comiskey, IFA County Chairman, warned Minister Hugh Byrne ... that he is heading for open conflict with farmers and rural communities in area (sic) already over-afforested. Mr Comiskey said the level of forestry has already reached saturation point in the county. The onward march of forestry will mean the death of rural communities, loss of traditional farms, the closure of rural homes, facilities like shops, schools, churches, garda stations and post offices. Where non-residents are concerned forestry grants and premiums are not of benefit to the local communities said the IFA man. ... Mr Padraic Divilly, Chairman of IFA’s Farm Forestry Section ... welcomed the new EU Council regulation on forestry, which excludes State companies throughout the EU from entitlement to forestry premiums. However, Mr Divilly expressed disappointment that other private companies were not excluded as their
participation in the forestry scheme was often at the expense of farmers and rural communities.

(LO 21/4/99: 10)

In 1999 the first active protest in Co. Leitrim for several years occurred when a group of local residents from Govagh/Cloone protested at a site to stop machinery entering the site so that the land would not be planted. The land in question was reported to be owned by a ‘non-national’ and was to be planted by Greenbelt:

According to an IFA source the protestors met with the driver of the machine outlining their strong resistance to any planting of trees (sic) and ploughing of the land. He then decided not to enter the property and negotiations were on-going over the weekend. ... The IFA state that local farmers are interested in buying the land to use for agricultural purposes and in these circumstances it is the policy of the IFA to offer it’s (sic) full support. They are now calling on the owner to sell the property to them or to carry on the use of the land for agricultural purposes.

Local residents have also voiced their fears about the proposed planting. One family ... pointed out that if it goes ahead they will be surrounded by forestry. (LO 27/10/1999: 3)

The protest reportedly continued for several days, with IFA executive members joining the locals:

However, matters came to a head last Thursday, October 28th, when local Gardai were called in to help defuse the situation. Eventually both sides agreed to meet ... ‘... after a good number of hours in consultation I believe that we came to a compromise deal that both the local farmers and Mr Moninex [the owner of the land] can now agree on’ Paddy Kennedy [vice-chairman of Leitrim IFA] said. ... News that the two main fields will not now be planted on will have allayed fears voiced by a young Dublin based couple who had joined in the protest. The couple ... had just recently purchased a house directly facing one of the fields ... they feared that the planting of trees in the field would immediately devalue the house and would also destroy the wide open view of the area. That is now unlikely to happen, and Mr Leddy [Regional Development Officer, IFA] was particularly pleased that a solution has been (sic) found. (LO 3/11/1999: 1)

In 1999, the Planning and Development Bill was passed, which removed the exemption of afforestation from planning that had been in the 1963 Act of the same name; this was enabling legislation only that allowed for afforestation to be brought under planning control if so decided (SE 10/11/1999 Vol. 160: 1353; McDonald 25/08/1999). Despite its role as enabling legislation only, it sparked speculation that forestry might be brought under planning control, with concern expressed by the forestry sector about the ability of local authorities to make informed decisions:
Within the forestry sector, there is now widespread acceptance of the principle of greater consultation at local level, regarding forestry developments, but there is total opposition to the introduction of increased legislation to impose this. (Scanlan 15/05/1999)

The LCC, however, continued its ongoing call for all afforestation to be subject to planning permission despite the IFA tending to reject this approach as a solution to the issues (e.g. DE 17/2/2000 Vol. 514: 1099-1100).

These concerns were ongoing at the end of the period studied, with continuing calls for action to prevent ‘indiscriminate’ afforestation by non-farmers, the fate of Coillte’s premia payments not yet fully decided, and the IFA and LCC calling for different types of solutions while communities were suggesting a wide range of actions be taken. Despite some evidence of escalation over time, the conflict tended to be expressed via media articles and the occasional public meeting, with only a single physical demonstration documented during the 1990s in Co. Leitrim.

All interviewees stated that concerns over afforestation were of much lower intensity after the introduction of premium payments (annuities) for those who undertook afforestation. In other words, this conflict was considered to be considerably less widespread or intense than the conflict preceding it.

6.5.3 Did positive change occur in the conflict?

In general, there was little evidence of positive change in this conflict over time, although there was also relatively little escalation for much of it, and some actions were taken to address concerns (such as improving consultation of local government by the Forest Service).

Outcome-based evaluation

The level of media reporting of this type of conflict increased in the mid-1990s, with a range of concerns regularly reported in the Observer (Figure 6.11). This indicates an intensification of concerns from the mid-1990s, relatively consistent with the perceptions of interviewees. However, some interviewees felt concerns had remained more stable than is indicated by the number of media articles, and that many reports of concerns representing the Observer beginning to report plantation sector news more regularly in its agricultural pages as more farmers took up farm forestry. This is
supported by qualitative examination of the Observer, where it became more common to report regularly on changes to grants, premiums and regulations, which often involved recording concerns more regularly than may have otherwise occurred.

It is therefore likely that conflict remained relatively steady through the 1990s, with perhaps some intensification in the late 1990s.
Criticism of afforestation grants and premiums

Concerns about scenic and landscape impacts

Concerns about impact on rural culture/community

Concern over high land prices

Concern non-farmers have unfair advantage purchasing land

Figure 6-11: Number of articles and letters published in the Leitrim Observer that discussed key concerns forming part of conflict over afforestation incentives in Co. Leitrim
Process-based evaluation

However, the types of processes used to express and act on concern differed considerably from the conflict that preceded this one. Instead of physical protest and pickets, concern was most commonly expressed through lobbying of government and politicians, and via public meetings. This perhaps reflects the shift in the scale of conflict – rather than focussing on individual properties being sold for afforestation, concerns were being expressed at a national scale about the levels of grants and premiums paid and who was receiving them. This led to quite different avenues for expressing concern.

These processes mostly led neither to escalation or de-escalation in the level of concern, instead seeming to involve ongoing expression of concerns, particularly when grant and premium rates were being renegotiated – a process occurring every two to three years through the late 1990s. However, the shift to using an adversarial process to express concerns – via formal complaint to the EU – indicates existing processes did not adequately address the issues over which concerns were held in the conflict.

Relationship-based evaluation

There was no evidence of improvement in relationships between groups involved in the conflict, and even those expressing concerns often disagreed on appropriate solutions to the conflict - the IFA focussed on changing who received grants and premiums, while local government and groups such as the League for Unplanned Forestry were more likely to focus on trying to have afforestation brought into the planning system.

Transformation-based evaluation

This conflict was driven by the underlying strong belief, held by farmers, many rural residents and local government, that there was a need to maintain farmers in rural areas to be able to maintain rural population and hence to maintain rural culture and community life. Yet at the same time, numbers of farmers were declining rapidly for a range of reasons relatively unrelated to afforestation, while new non-farmers were purchasing land in rural areas and some ‘hobby’ farmers shifting to rural areas. These
underlying pressures did not change during the period studied, with continuing rapid rural change continuing.

However, a major shift that did occur was improvement in the availability of employment, and in household income, across Ireland, including in Co. Leitrim. Increasing numbers of farmers had off-farm employment, and making a return from agriculture was not as important as it had been previously. These changes may have influenced the way farmers and others viewed afforestation, as it was now perceived to be less of a direct threat to livelihood than it had been previously.

**Goal-based evaluation**

Overall, the goals of different parties were partially met. Local governments were being asked for advice on proposed afforestation, even though afforestation was not formally subject to planning permission below a certain threshold. Grant and premium rates were higher for farmers than non-farmers, although not to the extent desired by the IFA. However, because the changes made did not completely meet the goals of conflict participants, conflict continued.

**6.5.4 Event history analysis**

The events of this conflict, after initial development of concerns over afforestation by non-farmers after introduction of premium payments, split into the four related yet distinct streams shown in Figure 6.12.

These four streams represent parallel and sometimes overlapping attempts by different coalitions of actors to address their concerns over afforestation, particularly by non-farmers.

The IFA and farmers tended to focus achieving alteration of grant and premium schemes so they would be unavailable, or at least less available or attractive, to non-farmers. While non-farmers remained eligible for lower levels of grant and premiums, this gap did widen slightly over time, although not as much as desired by the farming community.

Local government, meanwhile, tended to focus on calling for afforestation to be made subject to planning permission as a way of resolving conflict. While the IFA at some
points called for planning permission, by the late 1990s they were clearly opposed to the concept, feeling it would impose unnecessary controls on farmers undertaking afforestation.

Both the farming and local government communities, as well as environmental groups, criticised Coillte having access to premium payments for undertaking afforestation. Perhaps because of this strong alliance in perception, or perhaps simply because the EU agreed with their argument, this avenue of complaint resulted in changes that were being implemented at the end of the study period, restricting Coillte’s access to premium payments and therefore their potential future competition in the land market.

Finally, rural residents, local government and some ENGOs called public meetings to discuss concerns or organised plans outside existing institutions to try to address issues. These plans had not been adopted by the end of the study period.

Several factors prevented the different responses from being successful in changing this conflict. The IFA’s attempts to change access to forestry premium payments were not consistent with European Union guidelines setting out how these types of payments could occur. Achieving a successful shift in conflict would require changing EU guidelines to enable grant conditions at the Irish level to be set to exclude non-farmers. Similarly, calls for afforestation to be subject to planning permission required change at the national – and potentially the EU – scale. The changes called for by local community groups faced a range of similar challenges, with many of the proposed changes only able to be implemented if national or EU legislation or policies were altered.

In general, proposed solutions were either a source of disagreement between the different groups expressing concerns in this conflict, or required substantial change at the EU or national level, rather than only the local scale. This was quite different to the first conflict, in which improved consultation and negotiation at the farm level made a significant difference to levels of conflict along with change implemented at a larger scale in the form of introduction of premium payments for afforestation.
Introduction of premium payments as well as existing grant payments leads to increased afforestation by farmers (and non-farmers, who also receive premium payments).

Concerns are expressed by a number of groups that afforestation by non-farmers leads to negative social impacts in rural communities and for the farming community.

Calls for grant and premium payments to be directed more to farmers with less or none provided for non-farmers.

Calls for afforestation to be subject to planning permission, mostly from local governments.

A number of groups, including the IFA, environmental groups and others, criticise Coillte receiving premium payments for afforestation. Complaints are made to the EU.

The European Court of Auditors finds that Coillte may be ineligible to receive premiums.

Public meetings to air concerns over perceived negative impacts of expanding afforestation.

Negotiations about repayment of premiums ongoing at end of study period.

Figure 6-12: Event history analysis of conflict over afforestation incentives in Co. Leitrim.
6.6 Conflict 3: Impacts of afforestation on the environment

From the late 1980s, concerns were raised about the potential environmental impacts of afforestation. There are some links between this conflict and concerns over the ‘non-farmer’ afforestation conflict that was occurring at the same time, with environmental concerns sometimes expressed in association with concerns over the social impacts of afforestation, and similar solutions sometimes suggested to both issues.

6.6.1 Information available on the conflict

Information on this conflict was drawn primarily from interviews and media articles – including articles from the Irish Farmers Journal and The Irish Times as well as the Observer, as this conflict tended to be expressed at a national scale rather than being confined to Co. Leitrim. In addition some other documents were accessed, including guides to environmental regulations and the newsletters of some ENGOs.

About half of all interviewees discussed the topics forming part of this conflict. These included representatives of ENGOs involved in raising concerns about afforestation, local government representatives and those employed in the afforestation sector. Farming sector interviewees rarely discussed environmental concerns as a topic of conflict.

While a considerable volume of information was gathered, there were a large number of repeated, similar events in this conflict. Not all of these could be individually identified. Interviewees tended to identify common types or patterns of events, for example repetitive calls for the EIA threshold to be lowered, rather than pinpointing the exact times and dates when specific actions were taken. Similarly to the previous conflict, the history provided below gives an overview of general patterns of action taken in this conflict with some specific examples, rather than attempting to document every event in the conflict.

6.6.2 History of the conflict

While sporadic concerns were expressed about environmental impacts of afforestation (e.g. DE 18/10/1973 Vol. 268: 136-138; DE 6/5/1980 Vol. 320: 805-806), it was not until the late 1980s that they began to be raised publicly on an ongoing basis, both in
Co. Leitrim and more broadly throughout Ireland (e.g. LO 26/9/90: 8; LO 2/1/91: 9; LO 13/3/91: 4; MacConnell 04/10/93; Wilson-Wright 11/10/1993). The rise in concern about the environment was associated with growing calls for preservation of the landscape and social characteristics of rural areas. While most concerns in Leitrim still focussed on whether farmers were able to obtain land for agricultural use, they were increasingly accompanied by expressions of concern about the environmental and landscape impacts of afforestation:

It [afforestation] makes minimal contribution to the local economy, continues to damage our roads and is now a clearly recognised major pollution factor with the potential for the ultimate destruction of our rivers and lakes ... the price of land for many farmers wanting to purchase for the usual agricultural purposes has been greatly inflated as a result of competition from competing forestry interests. (Deputy Sean Doherty quoted in LO 27/3/96: 6)

A variety of environmental and heritage concerns were expressed, often by similar groups. For example, in 1988, the Union of Professional and Technical Civil Servants published a report calling for afforestation on bogs to be stopped, raising concerns that conifers had a negative impact on acidity of streams (Neeson 1991). In 1990 questions were raised in the Dail as to whether afforestation had damaged archaeological sites, with a report by the Sites and Monuments Records Office claiming damage had occurred. The Minister for Energy, Mr Molloy, stated that earlier afforestation may have caused damage but that current measures in place prevented damaged by requiring consultation on heritage issues, and that a set of guidelines were being drawn up to ensure protection of archaeological sites when undertaking forestry operations, to which Coillte and people applying for grants would be required to adhere (DE 3/7/1990 Vol. 400: 1837-1839).

Before long, concerns over environmental and landscape impacts focussed primarily on two issues:

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135 While some other issues or concerns were raised occasionally, they did not tend to come up on a regular basis. For example, concerns that afforestation was causing increased asthma were raised once in the Dail (DE 11/10/1995 Vol. 456: 1828-1829). Access to open spaces was a focus of campaigns by Keep Ireland Open and the Mountaineering Council of Ireland, although afforestation formed only one of many related concerns for both groups (e.g. The Irish Times 28/08/1995: 5; MCI n.d.).
• The appropriateness of the requirements for undertaking Environmental Impact Assessment (EIA) and requiring planning permission of proposed afforestation; and

• The appropriateness of the requirements set by the Forest Service for approving grants and premiums for afforestation.

In early 1990, the Irish government moved to implement Directive 85/337/EEC of the European Community, under which EIA was required before various activities could occur. Ireland’s transposition of the Directive involved creation of regulations that required planning permission to be given and an EIA to be completed for proposed afforestation of more than 200 hectares, or where a proposal was made to replace more than 10 hectares of broadleaf trees with conifers (DE 7/3/1991 Vol. 406: 419-420). However, as the large majority of new afforestation in Ireland was of single areas of considerably less than 200 hectares, EIA was very rarely required in reality. Because EIA and planning permission were in reality almost never required under this regulation, many called for the threshold area to be lowered (DE 7/3/1991 Vol. 406: 420-421).

At the same time, the Forest Service was consulting an increasing range of government agencies responsible for different environmental impacts about proposed afforestation before it approved provision of afforestation grants. For example, consultation was being undertaken as a matter of course when afforestation was proposed in areas of scientific interest, with the Wildlife Service consulted on 34 cases in the six months to 30 June 1990 (DE 10/7/1990 Vol. 401: 979). By 1990 a process was also in place under which:

When any application for grant approval is made to the Department for forestry grants, one of the procedures is that the local authority and their planning section are asked to give an opinion on the proposed planting and whether there are any special provisions in the county development plan in relation to that particular area. (Mr Molloy, DE 21/11/1990 Vol. 402: 2082).

However, this did not appear to stem concerns over environmental impacts of afforestation.

Of particular concern in Leitrim were the potential impacts of afforestation on water acidity (e.g. LO 13/3/91: 4). The LCC called on Coillte to adopt a Code of Practice to ensure that local amenities and facilities are preserved and prevent the oppressive
nature of some of the planting carried out in the county’, which would cover both social and environmental impacts of forestry activities (LO 10/4/91: 5). It later extended this call to all forestry bodies in its 1991 Development Plan which called for varied species to be planted, afforestation to keep a certain distance from roads and buildings, and for protection of water courses and archaeological and historical sites when afforestation was undertaken (LO 25/9/91: 1,3).

In 1990, An Taisce\textsuperscript{136} published a report criticising the emphasis on planting of coniferous species in Ireland and calling for increased broadleaf planting and lowering of the EIA threshold (An Taisce 1990). A range of environmental groups around Ireland became more vocal in expressing concerns about environmental impacts of afforestation. Quite often these groups also expressed concern about impacts of afforestation on farming communities, although this was generally expressed as fear about loss of a valued culture rather than direct competition with agriculture (see for example The Irish Times 11/04/1994; Hogan 03/05/1994):

Environmentalist groups are becoming increasingly vocal over the steady encroachment of coniferous blocks of Sitka spruce on the Irish countryside, and are demanding that a greater variety of tree species be planted and that planning controls be introduced for new plantations. (Coone 25/05/1994: 4)

A national campaign, calling for greater controls on forestry, in a bid to prevent blanket afforestation and the destruction of rural communities is being launched in Athlone next month by a County Cork based organisation, Foroise do\textsuperscript{137}n\textsuperscript{b} Pobal/Forestry for Community … FFC is a broadbased group, consisting of farmers, environmentalists, turf cutters, game and fishing enthusiasts, as well as those concerned with the decline of Gaeltacht\textsuperscript{137} areas. (LO 30/3/94: 9)

In 1992 the Forest Service produced guidelines for addressing landscape, fisheries and archaeology issues when undertaking afforestation and forest/plantation management. Those undertaking afforestation had to comply with the guidelines in order to receive grant aid (DE 15/2/1994 Vol. 438: 1723). In 1994 a ‘self assessment procedure’ was introduced under which qualifying forestry contracting companies could assess

\textsuperscript{136} An Taisce - The National Trust for Ireland is Ireland’s largest independent environmental charity.

\textsuperscript{137} The term ‘the Gaeltacht’ is used in Ireland to refer to regions where Irish Gaelic is the vernacular language commonly spoken at home; these regions are predominantly in the West.
compliance with relevant guidelines, with a percentage having their self-assessment checked by the Forest Service (Environmental Resources Management 1998: 25).

The Government argued that making compliance with environmental guidelines a condition of providing grant aid for afforestation satisfactorily addressed concerns:

Compatibility of forestry with the environment, including the landscape, is now a major consideration, and is in fact a condition of grant aid under the forestry programme. This is implemented through a variety of measures which include – prior inspection to identify environmental considerations – consultation with the local authority if the area is a scenic area listed in the county development plan or the 1977 Inventory of Outstanding Landscapes – Forest Service Guidelines on Forestry and the Landscape. (Minister for Agriculture, Food and Forestry [Mr J. Walsh], DE 15/2/1994 Vol. 438: 1723)

Concerns tended to be expressed about issues such as scenic views being cut off by afforestation, or trees being established close to neighbouring houses and creating a sense of isolation or cutting off light. In response to this, it was made a condition of grant aid that planting not occur within 30 metres of dwellings and associated buildings (DE 30/4/1991 Vol. 407: 1588-1591). However, further concerns were raised in the Dail about afforestation damaging scenic views (e.g. LO 4/3/92: 13). By 2000, the requirement for setback of afforestation from houses and dwelling was 60 metres, unless owners consented to afforestation occurring closer, in which case the setback distance was 30 metres (DE 1/2/2000 Vol. 513: 882).

Calls for increased planting of broadleaf species, and of more diverse species in general, occurred nationally throughout the 1990s, with environmental groups and the Tree Council of Ireland calling on the Government to increase the proportion of broadleaf species planted (see for example DE 11/3/1993 Vol. 427: 1848; MacConnell 10/05/1994: 2; Cullen 26/10/1994: 2).

The government responded to these calls by creating differentials in the grant and, subsequently, premiums paid for planting of different species (DE 25/5/1993 Vol. 431: 570-571). The highest rates of grants and premiums were paid for plantings of broadleaf species, followed by mixed conifer plantings, with single species coniferous plantings eligible for the lowest grants and premiums.
There were ongoing calls for planning regulations and EIA to be required for smaller areas of afforestation – for example, Deputy Ellis (representing Leitrim) proposed a threshold of five acres in the Dail (LO 28/6/95: 11). Following ongoing criticism of the threshold of 200 hectares, the Minister set up a review of the EIA threshold in 1994 (DE 3/11/1994 Vol. 446: 1866-1867).

In 1994, a well-publicised report, ‘Ireland’s Forested Future’, was published by An Taisce. While welcoming the tightening of environmental controls in recent years, the report called for further, stricter environmental controls and for the proportion of afforestation undertaken using broadleaf species to increase (DE 3/11/1994 Vol. 446: 1830-1831; Cullen 26/10/1994: 2). Additionally, particular concern was expressed about the impact of afforestation and other activities on bog areas (see for example McGarry 04/05/1995; McDonald 19/07/1995: 3).

In April 1996, the Minister for the Environment announced major changes to EIA requirements and planning notification requirements in relation to afforestation. From the 1st May the Forest Service began notifying local authorities of applications for grant aid for afforestation for any area over 25 hectares. From 1st October, the EIA threshold was lowered from 200 ha to 70 ha, following the lobbying that had occurred for several years (DE 16/4/1996 Vol. 463: 2130-2131; IPCC n.d.). The reduced threshold was to be monitored and reviewed in three years time (LO 22/5/96 Farming Supplement: 2).

In addition, local authorities were asked to designate areas sensitive to afforestation development, and the Forest Service began to notify of any application for grants for afforestation within sensitive areas regardless of the size of the proposed area of afforestation.

These changes were implemented as regulatory, rather than legislative, changes (McDonald 16/04/1996: 5; DE 21/5/1996 Vol. 465: 1622-1623; Environmental Resources Management 1998). It was also announced that the 1963 Local Government (Planning and Development) Act would be amended to allow for afforestation to be brought under planning control, as under the 1963 Act afforestation was an exempted activity (LO 22/5/96 Farming Supplement: 2).
However, the reduced threshold was criticised as inadequate by a range of groups. A group calling itself Communities Concerned at Unplanned Afforestation, based in Leitrim/West Cavan and North Roscommon, submitted concerns over the threshold to the Government’s Forestry Forum, arguing ‘indiscriminate afforestation’ was causing damage to tourism and the environment (LO 10/7/96: 12).

The Government’s Strategic plan was criticised by some environmental groups, including the newly formed environmental group VOICE which claimed it was ‘seriously flawed’ and would ‘accelerate coniferisation and environmental damage’ (French 2000):

... it’s a travesty, even current targets are only for 20% broadleaves, which means 80% coniferisation, 80% exotic North American species which are planted very, very densely on soil that shouldn’t support them. (ENGO respondent # L4)


In December 1996, following lodgement of complaints from groups including An Taisce, the Irish Peatland Conservation Council (IPCC) and others, the European Commission (EC) initiated court proceedings against Ireland in the European Court of Justice, claiming Ireland had failed to adequately transpose the EC directive related to EIA (DE 15/4/1997 Vol. 477: 1042; DE 30/6/1998 Vol. 493: 666). In December 1998, a non-binding opinion was submitted to the Court finding Ireland had failed to adequately transpose the Directive and that this had likely led to damage to bogs and waterways as a result of coniferous afforestation that did not require EIA (Smyth 18/12/1998: 2). The Court subsequently ruled that the Republic of Ireland ‘had overstepped its discretionary powers by exempting small sites under 70 hectares from...

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138 VOICE: The Voice of Irish Concern for the Environment was formed in 1997.
139 EU Directive on Environmental Impact Assessment 85/337/EEC.
the requirement for environmental assessment before permission was given for new uses.’ (Smyth 22/09/1999: 2).

While the EC was in the process of court proceedings, the changes to regulation announced in 1996 were being implemented. In 1997, the LCC discussed which parts of Co. Leitrim’s landscape should be designated as sensitive to afforestation development, with some suggesting the entire County be designated sensitive so the LCC would be notified of all applications for afforestation grants. The councillors debated whether the provisions for designating sensitive areas would result in improved outcomes from their point of view, with some believing that they were ‘taking on responsibility without power’ while others saw it as a useful step allowing them to have greater say in where afforestation was located (LO 2/4/97: 11). For example:

Cllr Brennan ... stated “Councillors are going to come under the hammer. We have no powers. It is just another gimmick ...” ... Cllr Borhan agreed “We are giving the impression we can do something but I don’t think we can do anything.” At this point Michael McGoey commented “One of the main items from this council over time is the sense of powerlessness with regard to forestry. The reason for this map is to consult with the council. In my view that consultation is the beginning of power. This map will be the bedrock of this consultation for the future ...” (LO 2/4/97: 1)

In October 1997, the LCC called on the Minister for the Environment to consider the map submitted by the LCC and hoped that the map wouldn’t ‘gather dust’ (LO 22/10/97: 5). Also in 1997, environmental concerns intensified when a research report was published that found afforestation with coniferous species could acidify water courses and water bodies in some catchments (DE 19/2/1998 Vol. 487: 985).

In 1998, a report prepared for The Heritage Council called for the EIA threshold to be reduced below 70 ha, pointing out that the most recent two Environmental Impact Statements submitted to local authorities had occurred in 1996 and 1992, indicating that very few afforestation proposals required EIA. The report stated that the existing guidelines published by the Forest Service offered limited protection and needed revision. The report strongly recommended development of processes involving considerably more consultation with communities, arguing that the formal provisions allowed for in the EIA process were not adequate. They did note that considerable
consultation with other government departments was already undertaken by the Forest Service when proposals for afforestation were received which might have an impact on the area of the environment or land use covered by other departments (Environmental Resources Management 1998).

Further conflict over environmental and landscape issues occurred in 1998, when the League Against Unplanned Forestry called for a land use policy to be developed to regulate forestry development and achieve a balance between agriculture, forestry, scenic views, Natural Heritage Areas (NHAs), fisheries and tourism. They argued that current planting was leading to rural isolation and loss of tourism potential. Amongst their specific calls were for afforestation not to take place within 500 metres of any dwelling house or farmyard, or within 100 metres of roads, streams of lakes, unless the trees planted were hardwoods (broadleaves); more testing of effects of Sitka spruce on acidity of waters, and no phosphates of weedkillers or insecticides to be allowed in grant aided forestry, as well as more to be done to address roading issues (LO 3/6/98: 19):

Mr Wynne said that the League Against Unplanned Forestry is not opposed to forestry which is planned with consideration given to our fragile landscape. (LO 3/6/98: 19)

During 1988, a new response to concerns over environmental impacts was introduced in the form of development of independent certification standards for plantation establishment and management.

About this time, the Forest Stewardship Council began the process of developing a standard for Irish forestry certification, and the first draft of the Irish Standard was published in 2000 (Roche 2000). The process of developing the standard involved all key stakeholder groups involved in conflicts over afforestation at the time; additionally a series of nationwide public meetings was held as part of this process, including one in Sligo which was announced in the Observer (LO 2/2/2000: 10). The certification standard was one which would be used to independently certify that plantations were being established and managed sustainably. However, at the end of the period studied the FSC standard had not been used to certify any afforestation related activities, and so its impacts could not be studied.
At the same time that an FSC standard was being developed for Ireland, as part of the Strategic Plan the Forest Service was developing a Irish National Forestry Standard (INFS), a Code of Best Forest Practice, and revised guidelines on landscape, fisheries and archaeology together with new guidelines on biodiversity and harvesting. The INFS was developed around the same time as the FSC Irish Standard, but in a separate process (Daly 2000). A range of consultative methods were used to develop the INFS, Code and revised guidelines, including establishment of a Forestry Forum composed of a range of representatives of key stakeholder groups, as well as formation of expert groups advising on scientific and technical aspects (DE 11/2/1999 Vol. 500: 592-593; DE 24/3/1999 Vol. 502: 1069-1070). However, some ENGO representatives interviewed felt they had not been adequately involved in development of the INFS and associated Code and guidelines.

The INFS was released in 2000 together with its supporting instruments, the Code of Best Forest Practice and the set of five environmental guidelines. The INFS and guidelines were explicitly recognised as ‘living documents’ which would be continuously monitored and reviewed to incorporate new knowledge about best practices. As previously, compliance with the INFS and associated measures was a requirement for grant aid (Forest Service 2000a; Irish Farmers Journal 30/09/2000).

Perhaps adding to the confusion of policy about environmental management, Coillte adopted a ‘Sustainable Forest Management’ (SFM) approach in 1999, with six criteria and 25 indicators describing SFM (Coillte Teoranta 1999); Coillte also began going through the FSC process to achieve certification (Lowery 19/09/2000).140

Despite increasing differentials being introduced for broadleaf versus coniferous afforestation each time new grant and premiums rates were introduced, there were ongoing calls for more broadleaf planting throughout Ireland (see for example DE 13/5/1999 Vol. 504: 1169-1170). This was despite broadleaf plantings increasing from

140 Also in 1999, the Wildlife (Amendment) Bill 1999 provided permanent legal protection for NHAs, and for a system of compensation and appeals related to NHA designations (Nugent 14/08/1999). This had potential implications for undertaking afforestation, with some areas potentially no longer eligible for afforestation due to their designation as Natural Heritage Areas.
just over 2% of new afforestation in the early 1990s to over 15% through the latter half of the 1990s (Forest Inventory and Planning System Unit 2000).

In 1999, the IFA argued publicly that afforestation should not be subject to EIA, a shift in their position from earlier calls for more planning controls (DE 27/4/1999 Vol. 503: 1344-1345). This shift was a result of concern within the IFA that if EIA thresholds were reduced substantially, farmers would find it considerably more difficult to afforest due to the requirement to undertake an EIA.


In 2001, a new process was announced by the Forest Service, under which Regional Forest Plans would be developed based on stakeholder consultation, particularly with local government. These Plans would be used to guide where afforestation would be approved or not approved (Forest Service 01/10/2001). The threshold for EIA was lowered to 50 hectares, and approval was changed from being given by local authorities to being a statutory consent from the Minister for the Marine and Natural Resources (Circular Letter P/D 9/01 from Mr Gallagher circulated to all Planning Authorities and An Bord Pleanala, 5/12/2001).

By 2002, the LCC was publishing guidelines for forest sensitive areas in the landscape as part of its County Development Plan 2003-2009. The Plan criticised the lack of planning control over afforestation; it identified several areas of landscape deemed particularly sensitive to afforestation – steep slopes above the 300 metre contour line and areas with views to water and valley approaches to the hills. It also identifies that new afforestation would be encouraged on marginal agricultural land below 300 metres, and on drumlin landscapes of the central and southern lowlands (LCC 2002).

However, despite the considerable changes in environmental regulation and the gradual increase in the proportion of broadleaf and diverse conifer species established in new plantations, when interviews were conducted in 2001 and again in 2004, none of those interviewed believed concerns over environmental impacts had lessened appreciably.
Interviewees from ENGOs generally described the responses made by the Forest Service – such as lowering the EIA threshold and developing new guidelines those undertaking afforestation had to comply with – as inadequate. They believed considerably more action was needed to address their concerns. Local government representatives remained concerned about landscape and water impacts of afforestation.

The majority of foresters interviewed believed the biggest challenge to their work was the increasing calls for more planting of broadleaf species, and restrictions on where afforestation could occur. Several described concern that restrictions on the type of species planted were creating difficulties, with limited markets for timber from some broadleaf species, and difficulties growing these species on the poorer quality land often made available for afforestation. However, three foresters believed that new guidelines might improve help reassure critics that environmental impacts were taken seriously and the Forest Service guidelines for approving grant and premium payments ensured potential negative environmental impacts were addressed.

There was considerable speculation about the potential impact of FSC certification on the debates over environmental impacts, but no clear indication from ENGO representatives that they felt the proposed standard would address their concerns.

Representatives from both ENGOs and the plantation sector tended to describe each other in fairly derogative terms, with both groups often trying to de-legitimise the other’s views:

... the ENGOs ... they always had a bee in their bonnet regarding broadleaf planting ... I think myself they went over the top ... we weren’t helped either by ah [the fact] that some of the ENGOs you know did seem to be led by people a) who were non-nationals and b) didn’t have any great property around them. Now I know that’s not – that is not politically correct to say ... and their propaganda has been at times almost black propaganda, they have played around very loosely with the truth, they have been uneconomic with the truth ... (Farm forestry respondent # L1)

... the forestry people were in Brussels, they told the European Commissioner they were planting 20% broadleaves. And we knew from their database they were planting in fact 15% ... so 20% was way out of line, there was no way we could really convince the Commissioner how duplicitous these horrible people who were going to Brussels were ... (ENGO respondent # L5)
While environmental groups were commonly consulted about afforestation issues by the end of the period studied, some believed the increased consultation was not providing them with real change or opportunity to achieve their goals:

... there’s a group of us in the NGOs that feel that actually this consultation thing is a sneaky ploy by the government to destroy us with deadlines and work because you’re damned if you do and you’re damned if you don’t, a two inch document comes slapping in the door and you’ve got 30 days to comment on it and there’s so many two inch documents slapping into the [particular ENGO] office that it can take them most of Monday ... just to sort the post! (ENGO respondent #L5)

6.6.3 Did positive change occur in the conflict?

Overall, while changes in practices occurred, these had not yet met the goals of the critics pushing for change. Relationships and processes for expressing and acting on concerns had not changed, and levels of concern and conflict remained at a relatively high intensity at the end of the period studied. This conflict therefore did not change positively over the period studied, despite significant changes occurring in environmental regulation and guidelines which resulted in many real changes in afforestation practices.

Outcome-based evaluation

Media coverage of environmental concerns about afforestation increased through the 1990s in the national media, but did not show similar patterns in terms of numbers of reports in the Observer, as can be seen in Figure 6.13. While the Observer did carry more reports of environmental concerns in the 1990s, the number of reports fell slightly.
Figure 6-13: Number of articles and letters published in the Leitrim Observer on concerns forming part of conflict over environmental impacts in Co. Leitrim.
However, all interview respondents – including those from the plantation sector, local government, and environmental groups – agreed that environmental concerns had increased through the 1990s and were still intensifying.

The lack of reflection of this in the publishing of articles in the *Observer* perhaps reflects that many concerns were being expressed as a national, rather than local, scale, although the changes made as a result of this conflict impacted how afforestation could be undertaken at the local scale.

**Process-based evaluation**

The processes used to act on this conflict were primarily traditional lobbying and use of media to communicate concerns. In addition, scientific reports were commonly used as a basis for campaigning for changes to occur.

While the Forest Service was the body responsible for approving new proposals for afforestation, and referred proposals to a range of other government authorities for comment and decisions about whether they might have negative environmental impacts, this process, and the changes made to it did not satisfy environmental critics. They preferred a formal EIA approach to be used more often, and lobbied effectively at the national and EU scales to achieve this.

Effectively, this conflict was acted out at a national and EU scale, rather than at a local or regional scale, using lobbying, media and environmental campaigns as space within which to express and act on concerns. The processes did not often involve direct interaction between environmental critics and the forestry sector, with most exchanges occurring via the media, rather than face to face. Towards the end of the period studied this changed with stakeholders discussing issues through the development of the Irish National Forestry Standard – however, some ENGO representatives felt they had not been adequately represented in this process and had relatively little faith in its outcomes as a result. The Forest Stewardship Council process also brought stakeholders together...
to discuss issues. Unfortunately, the outcomes of these processes could not be examined as they were either only just completed or still ongoing at the end of the study period.

Relationship-based evaluation

There was no evidence of improved relationships between actors in the conflict by the end of the period studied. ENGO representatives and plantation sector interviewees tended to criticise the other group’s point of view in interviews, often also calling into questions the morals and motives of the other ‘side’.

Transformation-based evaluation

The underlying issues driving this conflict were very differing perceptions of environmental risk and impact resulting from afforestation. Representatives of ENGOs and of forestry companies were perhaps most at odds in their perceptions and beliefs about the environmental impacts of afforestation and plantation management, while government agency representatives tended to seek regulatory solutions to the concerns raised. There was no evidence that perceptions about levels of impact or risk of impacts had converged during the course of this conflict, and so the underlying differences in world view were not transformed.

Goal-based evaluation

The goals of the environmental movement were to achieve environmentally sustainable afforestation. However, from the interviews and the documents examined, it is apparent that the criteria for achieving this are contested even within the environmental sector, and changed over time. While some of the goals were partially met – particularly an increase in broadleaf planting, and lowering of the EIA threshold – the changes made were generally not comprehensive enough to satisfy the goals of those calling for change.

Plantation sector interviewees, meanwhile, had a goal of achieving sustainable afforestation, but very different views on what constituted sustainability. They also had the goal of achieving a financial return from the plantations being grown. They believed introduction of EIA for smaller areas would increase plantation management costs substantially, and in particular act as a barrier to farmers undertaking afforestation.
Similarly, they held concerns about increased broadleaf planting, stating that on some ground it simply was not possible to successfully grow broadleaf species. Their goals were not being met by some of the changes being made.

6.6.4 Event history analysis

The key events of this conflict followed two parallel streams, linked by the similarity of the approaches used to act on issues – ENGOs lobbying government and the EU to achieve change, as well as using publicity campaigns.

While the forest sector developed improved guidelines to address environmental practices issues, this development did not noticeably impact on the strategies used by ENGOs to achieve change. It was not possible to identify if the FSC standard had an impact on the conflict. While these two processes were intended to address environmental issues, it was actually the ongoing lobbying shown in Figure 6.14 that led to the changes in EIA thresholds and higher proportions of broadleaf planting achieved.

What is perhaps most interesting about the EHA is that there is very little action by the plantation sector to respond to concerns. When asked how they responded to environmental concerns, plantation sector interviewees usually either indicated they had not directly responded to the concerns as they believed the regulations in place ensured negative environmental impacts would not occur. Very few described actual actions taken with the exception of the development of revised guidelines through the Irish National Forestry Standard.

In Figure 6.14, open-ended arrows are used to indicate the ongoing nature of the conflict at the end of the period.
Concerns over environmental impacts expressed by ENGOs and, less commonly, local governments and other groups. This occurs in context of a number of EC Directives on environmental impacts that EC member countries must implement, and broader environmental movements.

- Calls for EIA threshold of 200 ha to be lowered
- EIA threshold lowered to 70 hectares
- Calls for EIA threshold to be lowered
- Complaint made to European Commission over the way Ireland had implemented the EC Directive on EIA
- EC finds Ireland has inadequately transposed the EC Directive on EIA
- EIA threshold further reduced to 50 hectares
- ENGOs lobby government and EU to achieve changes as well as undertaking campaigns via media to raise awareness of their concerns
- Calls for increased proportion of broadleaf species and 'diverse conifers' to be established as part of afforestation
- Government forest policy announcement include setting targets to achieve higher levels of broadleaf and diverse conifer plantings
- An Irish standard is developed for Forest Stewardship Certification
- The Forest Services develops revised guidelines for practices, a Code of best Forest Practice and the Irish National Forestry Standard, all aimed at ensuring best practice environmental outcomes are achieved

Figure 6-14: Event history analysis of conflict over environmental impacts of afforestation in Co. Leitrim
6.7 Conflict 4: Conflict over road maintenance and safety

Ongoing conflict has occurred over provision of funding for road maintenance, and the impacts of forestry traffic on County roads. This conflict has generally been between the LCC and, variously, the forestry sector, the State government and the EEC/EC.

This conflict had few links to other conflicts. Although several of the LCC councillors expressing concerns over roads were highly involved in protests over acquisition of land, concerns over roads were almost always expressed via different processes and at different times to other issues.

6.7.1 Information available on the conflict

Information on this conflict was primarily drawn from articles in the Observer, as well as three interviews with individuals employed in the LCC or members of the LCC during some periods where concerns were expressed, and three interviews with people employed in the forestry sector. Interviewees were able to comment on whether they had observed general changes over time in the issues, while Observer articles were used to identify dates of particular events and identify when particular actions were taken, as well as to directly quote some participants in the conflict. Respondents reported that the Observer had not always reported concerns over roading but had sporadically done so, particularly when concerns became more intense.

6.7.2 History of the conflict

From as early as 1970, the LCC complained that plantation-related activities were damaging roads in North Leitrim, and sought financial assistance for road maintenance. The LCC sought financial compensation as they lacked adequate funding in general to maintain and repair a large network of small local roads, and believed that the forestry sector should contribute where they believed it was responsible for damage.

Additionally, there were concerns over the safety of roads, particularly where large potholes had been created.

In the 1970s, these requests were made of the Department of Lands, within which the Forestry Division operated. The Department of Lands invariably told the LCC that those
using the roads were contractors, not direct employees, and it was those contractors who were liable for any damage (DE 27/5/1971 Vol. 254: 488-489; LO 12/6/71: 13).

While there were few media reports over the next 10 years, concerns over road damage continued, according to three interviewees, although they were unsure exactly what actions were taken about the concerns. Most believed concerns over roading were less frequently expressed in the 1970s, and began to be key concerns when transport of logs from maturing forests began occurring on a regular basis in the 1980s.

The issue next drew media attention in the early 1980s, when the LCC, after years of being told damage was the responsibility of contractors and not the Division of Forestry (by now the Department of Fisheries and Forestry), decided to try to take action.

In 1981, the LCC announced it was taking legal action against some forestry contractors it believed had caused damage to roads (LO 18/7/81: 12). However, no further media reports of action were found and no interviewees could recall actual legal action being taken.

The LCC then sought an injunction against the Department of Fisheries and Forestry transporting timber on some roads in late 1983, after the Department sent a formal letter advising it could not provide finance to assist with road maintenance costs (LO 19/11/83: 1). Two interview respondents reported that it was common throughout the years for the LCC to send letters formally requesting financial assistance for roadworks, which were rejected by the organisations from which funding was sought. The request and subsequent rejection was different in this case only because the LCC actively sought an injunction.

The situation was eased somewhat in early 1984 by the provision of £110,000 of funds for Forest Access Road maintenance and development, funded by the Irish government and the EEC (LO 17/3/84: 14). It is unclear whether the action of seeking an injunction influenced provision of this additional funding – one interview respondent was unsure, while another believed the ongoing pressure from the LCC led directly to the provision of the additional road funding.
For the next three years, the LCC received annual forest access road grants. These appeared to reduce concerns over road damage related to the forest sector, with almost no media articles in the Observer or reports from other sources of conflict over road funding.

In 1987, the Government announced it would not provide any forest access road grants to the County in 1988, resulting in 'a storm of protest' from the LCC. The LCC renewed their calls for the Department of Forestry to pay for road damage costs (LO 28/11/87: 3; LO 13/2/88: 3).

Ongoing conflict occurred over road damage from this point (e.g. DE 26/10/1988 Vol. 383: 975). In 1988, residents in Briscloonagh and Ballaghabehy threatened to erect barricades across roads to stop logging trucks passing through as a result of concerns over the poor condition of the roads. The residents had already gone to the LCC, the Department of Forestry and the Department of Environment and stated they had had no success at getting the problems addressed (LO 19/11/88: 1). In the second half of 1989, the LCC again considered taking legal action over road damage by forestry traffic (see for example LO 22/7/89: 1; LO 23/9/89: 3). Roading issues continued to be an issue of contention in 1990, with the Minister for the Environment responding to a request from the LCC for more road improvement funds by stating the LCC:

... have received their fair share of the funds available to me for the improvement of forest access roads ... There are no funds available to me in the current year from which additional grants ... could be provided to this or any other local authority. (DE 28/2/1990 Vol. 396: 1044)

In response, LCC Councillors threatened to encourage residents to 'take the law into their own hands'. However, after a subsequent meeting with Coillte, in which Coillte stated it would recommend a higher allocation for road funding to the Department of Environment, the threat was 'temporarily suspended' (LO 31/3/90: 1). A meeting was still sought with the Minister for Energy, Bobby Molloy, to discuss the concerns of the LCC and residents (LO 5/9/90: 3).

In December 1990, concerns intensified again:
Leitrim councillors have vowed to mount pickets at the offices of the Forestry Department, and as a last resort, to block timber leaving the county’s forests, unless something is done immediately about the state of county roads damaged due to hauliers. (LO 12/12/90: 1)

The Department of the Environment subsequently provided an extra £250,000 of grants for roads (LO 13/3/91: 1,6).

In 1993, a report on the condition of County Leitrim roads estimated that £1.75 million was needed to repair the roads, while the LCC had been spending approximately £60-70,000 annually (LO 26/5/93: 3).

Shortly after this report was made public, the LCC and timber processors agreed to seek a meeting with Coillte to discuss road maintenance issues, with the LCC and processors agreeing on the need to take action with relation to roading (LO 30/6/93: 3). No outcomes were reported in the Observer from this, and no interviewees could recall whether this particular meeting had taken place.

In 1994 allegations were made that overweight trucks were transporting timber through County Leitrim and then dividing their loads on reaching the Northern Ireland border due to stricter controls on weight (LO 27/7/94: 1,7).

Further ‘heated debate’ reportedly occurred in a meeting between the LCC and a delegation from Coillte in September 1994:

The debate was terminated with many of the councillors saying they had heard nothing new and the same outlines had been given by Coillte in the last three or four meeting. (LO 21/9/94: 3)

The LCC decided to try to obtain a meeting with the chief executive of Coillte, Mr Lowry (LO 21/9/94: 3). Nothing further was reported in the media for some time after this, but interview respondents reported that similar patterns seemed to continue occurring, with the LCC seeking meetings and funding from various sources and sometimes receiving extra funding, and sometimes not, for road maintenance.

In 1997, further concerns about road maintenance costs related to roads used by forestry traffic arose, with the LCC arguing over responsibility for major repairs needed to one particular road (LO 2/7/1997: 7). Later that month the LCC decided to send a bill to forestry bodies for damage to roads (LO 23/7/97: 5). In November 1997, meetings with
Coillte were held to discuss the issues (LO 19/11/97: 9). Similar issues arose subsequently (see for example LO 29/4/98: 12; LO 3/6/98: 28; LO 18/10/2000: 17).

No interview respondents believed the conflict over road maintenance had improved substantially over time, with all agreeing it was an ongoing source of contention. However, some believed there had been short-term successful change during those times when the forest sector and LCC both lobbied other agencies for roads funding. Two forest sector employees stated that there were efforts to minimise damage to roads, but that problems were ongoing. All agreed that road damage was a significant issue.

6.7.3 Did positive change occur in the conflict?

Outcome-based evaluation

This conflict followed a pattern of rising and falling intensity, with reports of concerns appearing in the media for short bursts every year or two (Figure 6.15).

![Figure 6-15: Number of articles and letters published in the Leitrim Observer about concerns over road maintenance and safety related to the plantation sector in Co. Leitrim](image)

However, a sustained decrease in reporting of concerns did occur after regular funding for road upgrades was received in the mid-1980s, while some peaks of media reporting of concerns happened when local residents joined in calling for action in the 1990s.
Process-based evaluation

No new processes for addressing the issues of the conflict were developed over time, with the LCC using threats of court action and sustained lobbying to try to obtain funding and action over roads. While at one point development of a shared lobbying effort occurred with the LCC and timber processors joining forces, this did not appear to achieve results.

Relationship-based evaluation

Relationships between actors in the conflict did not appear to improve or worsen significantly, with similar actions and communication occurring repetitively over time.

Transformation-based evaluation

This conflict was driven by an overall lack of funding for road maintenance in the County, as evidenced by the 1993 report indicating a very large shortfall in funding for road maintenance in general in the County. This overall shortfall was not addressed during the study period, and it appears concerns related to use of roads by the forest sector formed a part of this larger issue of needing to obtain adequate funding.

Goal-based evaluation

The goals of the LCC, the driving party in the conflict, were to achieve adequate funding for road maintenance. This goal was only partially achieved for a short period in the 1980s, and this did lead to reduced conflict.

The goals of the forest sector, meanwhile, were to have adequate roading for transporting plantation products, but with a clear goal of not paying what they regarded as unfair additional costs for road maintenance.

6.7.4 Event history analysis

This conflict, like many of those analysed, involved a repetitive cycle of similar events that occurred multiple times. This cycle is shown in Figure 6.16, which gives a chain of typical events in the conflict. While the events start off as a linear chain – a lack of existing road funding was required for conflict to occur, as was a lack of funding from the forest sector – the chain quickly shifts into a cycle of repeating events that continued
until the end of the period studied. In this cycle, the LCC would request funding needed for road maintenance, usually from the forest sector, and the forest sector would indicate it had no resources to fund the roadworks. This would be followed by lobbying of various agencies, and was sometimes followed by funding being provided from a government source for a period of time for roadworks. This funding would eventually cease, and a further cycle of conflict would occur.

This cycle was only broken for short periods, as a regular, agreed source of funding for the required road maintenance had not been achieved by the end of the study period. The LCC’s methods of obtaining funding required taking protest actions such as utilising the media to threaten legal action and/or protests unless funding was obtained. This process was continually used to achieve some level of funding for roading.

Overall, the conflict showed no signs of improvement, and was stuck in a repetitive and unproductive cycle of antagonistic relationships.
Ongoing poor road infrastructure in the County

Concerns expressed by the LCC that the forest sector should fund repairs to roads used by forestry traffic

Forest sector indicates it has no funding to contribute to roadworks

LCC threatens legal action over damaged roads

Some additional funding obtained from for road improvements

LCC threatens legal action and, sometimes, blockade or protest

Funding is stopped

Request for funding from forestry sector, other agencies do not succeed in obtaining funding

Concerns over road damage and how to obtain funding for roadworks expressed by LCC

Figure 6-16: Event history analysis of conflict over road maintenance and safety in Co. Leitrim
6.8 Conflict 5: Recreational facilities in forest parks

In Ireland, plantations form almost 100% of tree cover in the country. As the only large forested areas, they are commonly used for recreation as well as timber production. From the late 1960s Forest Parks were developed in the State's plantations, with walking trails and other amenities established to encourage recreation.

The development of these Forest Parks and their use for timber production as well as recreation, has led to some conflict. One conflict, over development of the Lough Key Forest Park, is described here.

6.8.1 Information available on the conflict

Information on conflict over Forest Park development was primarily drawn from the Observer, as well as interviewing two individuals involved in lobbying for changed management of plantation harvesting to better retain recreational facilities in forest parks. The information was, therefore, limited. This limited information was largely a result of most interviewees not identifying Forest Park development issues as conflicts and so tending not to discuss them when asked to describe conflict related to afforestation and plantations.

6.8.2 History of the conflict

Lough Key Forest Park, located in County Roscommon near the border with Leitrim, was opened in 1971 (LO 5/6/71: 1; LO 12/6/71: 1,12). It was well publicised as a place for public recreation. A caravan park, car parks and walking trails were developed at the Park. Up until the 1990s, the park was discussed in the media only in relation to promotion of events such as guided forest walks.


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141 Another conflict is described in Appendix 8, involving concerns over planned clearfelling at Mote Park in Co. Roscommon. While an important conflict, by the end of the study period it was not possible to draw key lessons from the dispute as key outcomes and processes were not yet decided. As such, it is not discussed here.
The key issue was concern that the Forest Park was being ‘run-down’, with the original recreational facilities provided now out-dated. Criticism initially focussed on the Rockfield Corporation, which in the early 1990s announced plans to develop a multi-million pound hotel and leisure complex in the park, but had not started development by 1997 (LO 19/3/97: 1).

A protest was planned outside Coillte offices to protest the lack of progress (LO 26/3/97: 6). Public meetings were held by the Lough Key Forest Park Action Group (LKFPAG), with a decision taken to march on Coillte offices in Dublin and present a petition calling for immediate development in Lough Key (LO 9/4/97: 3).

In response to the threatened protest, Coillte gave the developers a deadline for moving on their development plans (LO 16/4/97: 1). Protestors requested that Lough Key be made a National Park rather than stay under Coillte control, a suggestion rejected by the Minister for Arts, Culture and the Gaeltacht (LO 16/4/97: 28) as the Park was almost 100% plantation of Sitka spruce which were managed for commercial wood production.

The LKFPAG subsequently decided to set up an open forum for anyone interested to suggest ideas on future development in the park (LO 30/4/97: 1; LO 14/5/97: 5). Many people made suggestions and ideas to the forum, which were then exhibited publicly (LO 16/7/97: 1,3; LO 30/7/97: 3).

Following this, Coillte committed to begin a development program that was consistent with many of the suggestions put forward (LO 23/7/97: 1). In May 1998, Coillte announced an intention to invest £12 million in development of a new 150 bedroom hotel and leisure centre complex (LO 27/5/98: 3). In 1999, an announcement was made of £3.5 million investment by Coillte in improving existing facilities, building more cabins and constructing a hotel, welcomed by the LKFPAG (LO 21/4/99: 1). It was not clear from the media reports available why two quite different developments were announced, but it was the latter that was progressed.
In 2000, An Bord Pleanala\textsuperscript{142} gave permission for the development, now stated to be worth £4.8 million, to go ahead, overruling two objections from two Dublin residents (LO 26/7/2000: 1). Further positive discussions were ongoing from this point, with no more conflict reported (e.g. LO 20/12/2000: 3).

6.8.3 Did positive change occur in the conflict?

Outcome-based evaluation

Figure 6.17 shows reports in the \textit{Observer} discussing Forest Parks in general over time. Of the articles reporting negative perception, all those from the mid-1990s onwards were related to Lough Key Forest Park, and then stopped once successful change in conflict had occurred via the processes discussed below.

![Figure 6.17: Number of articles and letters published in the \textit{Leitrim Observer} discussing Forest Parks in and near Co. Leitrim](image)

Process-based evaluation

The drop in media reports of concerns was linked to a large change in the process used to progress new development at Lough Key. At the beginning of the conflict, new

\textsuperscript{142} The Irish Planning Appeals Board.
developments appeared to have been proposed and developed without significant input from the community. They also did not progress. The shift to using a participatory forum to suggest ideas for development, and the use of these ideas by Coillte in designing the eventual developments to take place, increased opportunities for interested members of the community to have meaningful input to the design of the proposed new facilities at Lough Key Forest Park.

Relationship-based evaluation

An initially antagonistic relationship between the LKFPAG and Coillte – in which the LKFPAG planned traditional protest activities including marching on Coillte offices - evolved into a relationship in which both worked together to achieve a mutually desirable outcome.

Transformation-based evaluation

It was difficult to identify specific underlying issues to this conflict, with none of the media reports or the few interview respondents who discussed the issue identifying particular issues. One, however, suggested that the conflict reflected increasing use of plantations for purposes such as recreation and as aesthetically pleasing spaces, as well as for utilitarian purposes (i.e. commercial wood production). This was leading to increasing demands on the plantation, and the interviewee questioned whether the wide range of new values could all be met while the area was still being used for commercial wood production. It is not possible to evaluate if this underlying issue was transformed or not.

Goal-based evaluation

The goals of all parties to the conflict were the same – to achieve development of appropriate recreational facilities at the park. These goals were in the process of being achieved, with development of new facilities progressing at the end of the study period.

6.8.4 Event history analysis

A fairly simple EHA of this conflict was developed, reflecting the relative paucity of detail obtained about the conflict via interviews and media reports (Figure 6.18). An
overall shift occurred in the way key groups communicated, with a shift to considerably more direct interaction between the LKFPAG, the broader community and Coillte. This shift, however, would not have resulted in a successful conflict outcome if Coillte had not acted on the outcomes and recommendations developed through the community consultations undertaken by LKFPAG. Coillte’s acceptance and use of the suggested developments arising from this community consultation was key to the successful change in the conflict.
Concern over 'run down' facilities in Lough Key Forest Park

Planned development is proposed but does not go ahead

Lough Key Forest Park Action Group (LKFPAG) formed to address issues; initially threatens to march on Coillte offices and uses traditional protest forms to achieve a voice

LKFPAG holds open forums to gather suggestions from community on desired developments. The results are then exhibited

Coillte commits to develop facilities consistent with suggestions put forward by the community

Coillte takes action, proposing and then implementing development plans in line with the proposals developed at the open forum

Figure 6-18: Event history analysis of conflict over provision of recreation facilities in Lough Key Forest Park, Co. Leitrim
6.9 Conflict 6: Establishment of processing facilities

While ongoing calls had been made for at least two to three decades for new wood processing facilities to be established in Co. Leitrim, when a facility was proposed, some conflict developed over its siting, and subsequently over emissions from the plant.

6.9.1 Information available on the conflict

Information on this conflict was primarily drawn from the reports in the Observer, as well as two interviews. Only a small number of interviewees felt able to comment on the issues, as most had gathered the majority of their knowledge of the dispute from Observer articles rather than from direct involvement in the dispute.

Information on the conflict was therefore relatively limited. To reflect this, the key details of the conflict are discussed while detailed analysis of actions by individuals is not presented as not enough data was gathered. Despite this lack of comprehensive data, enough information was found to identify some of the key patterns in the conflict.

6.9.2 History of the conflict

From the 1970s onwards, regular calls were made for new wood processing facilities to be established in Co. Leitrim. These calls came from various groups including Senators, Dail deputies, and the LCC.

Considerable speculation about whether a proposed pulpmill would be sited in Leitrim resulted in disappointment in 1993 when it was decided the plant would be located in Waterford (LO 7/7/93: 3; LO 8/9/93: 1).

However, in December 1994 it was announced that a new wood-pulp processing plant would be established by Masonite at Drumsna in Co. Leitrim. The news was welcoming.
in Leitrim, with many positive reports about the likely levels of employment that would be generated by the new processing facility (e.g. LO 21/12/94: 1,9; LO 28/12/94: 3; DE 8/2/1995 Vol. 448: 1796-1797; LO 1/2/95: 1).

In December 1994, key government agencies gave approval to the plant. A planning application to establish the factory was lodged with the LCC in February and approved, with few objections lodged (LO 22/2/95: 3).

Once this approval was given, there was a period during which objections could be made to An Bord Pleanala (the Irish planning authority) to the approval. It was at this point that conflict arose over the proposed plant, with a number of objections lodged.

The concerns raised by objectors included the potential for pollution of the Shannon river by the plant, and potential impacts on tourism (LO 29/3/95:1; LO 5/4/95:1; LO 17/5/95:1,3; LO 31/5/95:1; LO 14/6/95:1,3,4; LO 21/6/95:1; LO 21/6/95:12-13; LO 19/7/95:1,6; LO 13/9/95:1; LO 20/9/95:1,10-11; LO 27/9/95:3; McDonald 11/07/1995:3).

Perhaps the most unexpected objector was the Minister for Arts, Culture and the Gaeltacht, Mr M. Higgins. The Minister lodged an objection, raising concerns about lack of consultation with his Department about the potential for the plant to have negative visual impacts on the Shannon waterway, an important tourism focus for the County.

The objection was withdrawn within weeks, after discussions about the siting and impact were held with the Minister and changes made to the proposed siting of the mill that satisfied his Department’s concerns (DE 14/6/1995 Vol. 454: 1108-1112; DE 20/6/1995 Vol. 454: 1354-1356; DE 20/6/1995 Vol. 454: 1401-1403).

The Minister stated in the Dail, where his objection had been a subject of heated debate, that the objection was only lodged because his Department had not been adequately notified of the proposal or included in consultations about the proposed plant:

As previously stated ... I support and have consistently supported the proposal to provide a fibre board manufacturing plant in Leitrim. ... However, as Minister with responsibility for waterways, my concerns in respect of the siting of the plant related to its possible adverse impact on the visual amenity and on the tourist potential of the Shannon navigation. ... The decision in
regard to this plant was taken in December 1994 at a Government meeting, a Government of which I was not a member. My Department was not consulted by the Department of Enterprise and Employment, the Department of Agriculture, Food and Forestry or Forbairt\(^{145}\) in relation to the proposal and only became aware of it as a result of an article published in *The Irish Times* on 30 May 1995.

My Department sought advice from the Waterways Service and from the National Heritage Council. I personally became aware on Friday 9 June 1995 ... that the development could have a significant visual impact on the Shannon navigation. There was insufficient time to communicate my concerns to Leitrim County Council, to Forbairt or to Masonite prior to the last day for submission of objections to An Bord Pleanala, which was also Friday 9 June 1995.

I am pleased to advise the Deputies that, following consultations between representatives of my Department and the Masonite Corporation, I am satisfied that the additional amelioration measures proposed by the Company, which will encompass further mounding, landscaping and a 5 to 6 metre reduction in the ridge height of the main building, address my concerns. Accordingly, I have withdrawn my objections. (DE 20/6/1995 Vol. 454: 1403-1404)

In October 1995, the planning permission that had been granted for the plant by the LCC in May was upheld by An Bord Pleanala, subject to a range of conditions.

However, it was later reported that this decision overruled the recommendation of a senior inspector of An Bord Pleanala that planning permission be refused (LO 25/10/95: 7; LO 15/11/95: 1).

There were clear indications of ongoing controversy over the siting of the plant, reported both in the *Observer*, and by one interview respondent with direct knowledge of the dispute. However, as planning permission was been upheld after the appeal, no avenues for appeal were left.

Construction of the plant began in November 1995 (LO 1/11/95: 1), and was ahead of schedule through early 1996 (LO 21/2/96: 1; LO 27/3/96: 7; LO 27/3/96: 13). Media reporting during the construction phase was uniformly positive about the plant (see for example LO 22/5/96: 1; LO 22/5/96: 3).

\(^{145}\) The government department in charge of industry and development.
In August 1997, Masonite began exporting. Some concerns over emissions from the plant were subsequently recorded and are detailed in Appendix 8; however, they were not examined in detail for this study and so are not discussed here.

6.9.3 Did positive change occur in the conflict?

In this case, conflict ended primarily because (a) changes were made to the proposal, and (b) the mill was approved and built, effectively ending the conflict over whether it should go ahead. Some of those who held concerns were satisfied that their concerns had been addressed; others most likely were not.

Outcome-based evaluation

Most of the concerns expressed over the proposed plant stopped after (a) changes were made to the proposal, and (b) An Bord Pleanala gave approval to the plant (Figure 6.19). However, the cessation of media reporting does not necessarily indicate that objectors were satisfied – reports of concerns largely stopped as a result of a decision being made that the plant could go ahead, despite objections.
Criticisms of proposals for processing facilities

Concerns about pollution from Masonite plant

Calls for plantation processing plants to be est. in Co. Leitrim

Support for establishment of local processing

Figure 6-19: Number of articles and letters published in the *Leitrim Observer* discussing establishment and operation of plantation processing facilities in Co. Leitrim
Process-based evaluation

The processes used to make this decision were the ‘traditional’ Western governance processes under which applications are advertised and submissions about the applications allowed from any person or group. However, there appeared to be some deficiencies in the appeal process, with key stakeholders apparently unaware of the process for some time, leading to the late objection from the Minister for Arts, Culture and the Gaeltacht. It was this late objection that led to a large degree of the controversy about the plant.

Relationship-based evaluation

No improvement or deterioration in relationships could be observed from the limited information accessed about the conflict. There was limited opportunity for those involved to interact directly, with most concerns heard by third parties rather than directly communicated between groups.

Transformation-based evaluation

Not enough information was available to uncover underlying issues that led to development of this conflict, or whether these were transformed.

Goal-based evaluation

In this case, the goal of one group – those proposing the mill – was met, with the mill going ahead. The goals of some objectors were met by special conditions being imposed on approval of the mill. However, other objectors remained unsatisfied when the final decision was made, with their objections overruled by An Bord Pleanala’s decision to approve the mill going ahead.

6.9.4 Event history analysis

The events of this conflict are shown in Figure 6.20. The first round of controversy, over objections by the Minister for Arts, Culture and the Gaeltacht, were primarily a result of the Minister’s Department becoming aware of the approval process when it was almost
complete, and were resolved when changes were made to the proposal. Subsequent conflict – expressed in the form of objections to the proposed plant - was not resolved by changes to the proposal, but by approval being given for the plant.

The conflict was triggered partly by a lack of awareness of the ongoing process of approving the plant, and partly by a lack of satisfaction with the proposal. While the process-related causes could potentially have been avoided, and improved consultation may have allowed changes to be made to the proposal with less conflict, there remained some fundamental differences between a small number of objectors and the mill proposers that were unresolved when the mill was approved.
Calls from range of groups for investment in processing infrastructure as plantation estate matures in region

Announcement of proposed mill site

LCC gives planning approval

Objections lodged to planning approval, some a result of parties only becoming aware of the process close to the date by which objections need to be lodged

Changes made to proposal satisfy one major objector

An Bord Pleanala holds hearings and investigates proposal; upholds planning permission with special conditions

Some consequent controversy when it is reported An Bord Pleanala gave approval despite recommendations of one of its planning officers that permission should be refused

Mill construction occurs and operations begin

Figure 6-20: Event history analysis of conflict over establishment of the Masonite processing plant in Co. Leitrim
6.10 Conclusions

Similarly to the Great Southern region, the six conflicts identified over afforestation in Co. Leitrim varied considerably, supporting their analysis as separate conflicts instead of as embedded issues all related to a single overarching conflict. The event history analyses suggest that a range of different actions were used to address different conflicts with varying results, as did the analysis of the Great Southern region conflict.

The impact of different actions and processes forming part of individual conflicts can only be assessed by comparing the use of the same types of actions/processes across different conflicts, and by examining other factors that may have affected the course of conflict. This comparative analysis is presented in Chapter 7.
7 Comparison of conflicts

7.1 Introduction

Chapters 5 and 6 analysed individual conflicts and identified when they had changed positively or otherwise, and the chain of events leading to these changes. This allowed an in-depth evaluation of when and why individual conflicts changed in particular ways, with qualitative arguments supporting causal chains of events.

This chapter compares the 14 conflicts to identify factors commonly associated with successful change in conflict - or lack of it - across cases.

The first step in any comparative process is determining what should be compared. Chapters 2 and 3 identified a range of factors believed to influence whether conflict changed successfully or not, which fell into the categories of communication processes, actions taken to change afforestation, and characteristics of conflict and the context it occurs in.

From the literature review, it was apparent that most theory has focussed on identifying what types of processes work best to achieve successful change in conflict. The term ‘process’ here refers to communicative spaces in which people involved in a conflict can interact. They include a range of adversarial and co-operative processes as described in Chapter 2. Participants to conflict may also choose to deny conflict is legitimate and attempt to prevent any space being made available in which participants can interact as part of the conflict.

However, while much conflict theory has focussed on recommending particular communication processes, other factors potentially influencing the path of conflict have also been suggested. In particular, the literature on afforestation conflict recommended a wide range of specific actions be taken to address conflict – including shifting to smaller scale afforestation undertaken by farmers or communities, changing specific establishment and management practices, and changing incentives for or regulation of afforestation. It is important to examine whether these types of actions were associated with observable change in conflict in some or all cases.
Finally, some have suggested that the type of conflict, and exogenous factors such as changes in socio-economic conditions in a region, have the potential to influence the path of conflict. For example, different conflicts involved varying numbers of groups, and were over different topics. It is possible that some types of conflict are more likely to change successfully than others. It is equally possible that changes in external conditions, such as the wellbeing of the population of a region, have the potential to affect the intensity of a conflict.

The comparisons undertaken in this chapter are presented in these three categories, examining:

- The communication processes used to respond to conflict;
- The actions other than communication used to respond to conflict; and
- The characteristics of conflicts – e.g. the scale, intensity, complexity of conflict, and the social and physical environment in which it is embedded.

As discussed in Chapter 4, matrices are used to compare the ‘presence’ and ‘absence’ of successful change in conflict in association with (a) different communication processes (Section 7.2), (b) actions other than communication (Section 7.3), and (c) other characteristics of conflicts (Section 7.4). In each section, the matrix analysis is followed by qualitative analysis of likely explanations for the patterns observed across the conflicts, and to argue why particular conflict response processes, actions and other factors were associated with particular states of conflict escalation, stagnation, or positive change.\(^{146}\)

Following this, conjunctions of particular processes, actions and other characteristics are identified. This allows identification of combinations of factors that were sometimes or always present or absent when conflicts changed successfully, rather than focussing only on individual factors, consistent with the theories of historical causality and path dependence discussed in Chapter 4.

\(^{146}\) With only a relatively small number of cases examined it is entirely likely that, even if a particular factor was always absent or always present, it was not causally related to a conflict outcome occurring in conjunction with its presence or absence. Therefore this qualitative analysis is necessary to examine why particular patterns appear to occur.
7.2 Communication processes used to respond to conflict

This section compares the success or otherwise of the communication processes used to respond to conflict in each of the 14 conflicts. These processes represent the 'spaces' in which groups can interact over conflict. Thirteen types of communication process/space were identified which were used in one of more of the conflicts. Some of these are commonly discussed in the conflict literature, while others are not. In most conflicts, more than one process was utilised, often simultaneously.

A key question that arises when identifying which processes to examine is whether to focus on spaces used to respond to concerns or disputes, or the spaces used to express conflict in the first place. In the 14 afforestation conflicts studied, expression of and response to conflict often occurred in the same communication process/space. For example, the media was used both as a space in which concerns were communicated and in which they were responded to. As a result, it was possible to examine all spaces used, rather than focussing on those used specifically to respond to conflict.

Table 7.1 on the next page identifies which conflicts changed positively, negatively, or did not change in association with the use of different communication processes/spaces. This is followed by a qualitative comparison of the use of each process across different conflicts.

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147 From this point referred to as 'processes' or 'spaces'.
148 In some cases, processes were in place for some time before a change in conflict was observed; in others the change was simultaneous with implementation of the process. The qualitative analysis presented in Chapters 6 and 7 described the timing of changes in relation to particular processes.
## Table 7-1: Changes in conflict associated with different communication processes

<table>
<thead>
<tr>
<th>Conflict communication process/space</th>
<th>GS1</th>
<th>GS2</th>
<th>GS3</th>
<th>GS4</th>
<th>GS5</th>
<th>GS6</th>
<th>GS7</th>
<th>GS8</th>
<th>L1</th>
<th>L2</th>
<th>L3</th>
<th>L4</th>
<th>L5</th>
<th>L6</th>
</tr>
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<tr>
<td>Deny/ignore issue</td>
<td>x</td>
<td>x</td>
<td>n/a</td>
<td>x</td>
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<td>x</td>
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</tr>
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<td>Use media to communicate about conflict</td>
<td>x</td>
<td>n/a</td>
<td>x</td>
<td>x</td>
<td>x</td>
<td>x</td>
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</tr>
<tr>
<td>Physical demonstrations (or threat of)</td>
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<td>n/a</td>
<td>n/a</td>
<td>X</td>
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<td>x</td>
<td>x</td>
<td>x</td>
<td>n/a</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Adversarial court or bargaining process (including public submission processes)</td>
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<td>n/a</td>
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<tr>
<td>Information dissemination (occasionally, always, in conjunction with other responses)</td>
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<tr>
<td>Disseminate scientific evidence rejecting validity of concerns</td>
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<tr>
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<tr>
<td>Utilise a third party to facilitate communication</td>
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<tr>
<td>Reframe problems</td>
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Unshaded cell indicates process was used in this conflict

- = Positive change in conflict (lim = limited)
- = Negative change in conflict
- = No observable change in conflict
- = Not possible to evaluate change

Shaded cells indicate process was not used in this conflict

n/a = Response was not applicable to that conflict
n/u = Response was not used
n/ach = Process attempted but not fully implemented

GS1 = Establishment practices
GS2 = Neighbour conflicts
GS3 = Fire risk and management
GS4 = Aerial spraying
GS5 = Whole-farm planting
GS6 = Siting mill
GS7 = Transport to port
GS8 = Road infrastructure and safety
L1 = Competition for agricultural land
L2 = Afforestation incentives
L3 = Environmental impact
L4 = Road infrastructure and safety
L5 = Recreation facilities
L6 = Siting and operation of mill
7.2.1 Deny/ignore issue

Denying or ignoring concerns and disputes was almost invariably associated with continuation or intensification of conflict.

A period in which concerns were ignored or dismissed was identified in nine of the 14 conflicts. In the other five, conflicts were responded to rapidly without an intervening period in which one or more parties denied the legitimacy of, or ignored, concerns rather than responding to them.

In all of the five conflict where there was no 'denial' phase, there were clear imperatives that led to conflict being acknowledged and responded to relatively rapidly:

- GS3 (fire risk and management): Concerns were responded to rapidly as fire risk is a well recognised concern for all landholders in the region. The plantation sector had multiple legal requirements to address fire risk and management issues as well as considerable economic incentives, and so fire risk was a well-acknowledged issue prior to concerns being publicly raised;

- GS7 (transport to port): Similar to GS3, concerns about road congestion in Albany had been well recognised prior to specific concerns being raised about transport of woodchips. As a result, the conflict was acknowledged and responded to as soon as it occurred, with no claims made that congestion was not an issue of concern;

- GS8 (road infrastructure and safety): Concerns raised about roading were acted on rapidly because all stakeholders agreed that road infrastructure and safety were key issues that need to be addressed;

- L2 (afforestation incentives): This conflict was responded to rapidly as it was effectively a continuation of earlier conflict (L1) in a different form, and involved many of the same actors as the earlier conflict; and

- L6 (siting and operation of mill): In this conflict, concerns were raised as a result of an approval process that provided space for concerns to be expressed and acted on.
The nine conflicts in which conflict was initially denied or ignored shared no readily identifiable characteristics. They occurred at scales from the neighbour to the national; involved a range of topics from concerns over environmental impacts to concerns over social impacts; and involved a range of groups.

In all nine cases where conflicts was denied or ignored, the denial/ignorance was accompanied by an intensification of conflict. For example, in the Great Southern dispute over establishment practices (GS1), denial that the mounding techniques used were a cause for concern was followed by an increase in the number of people publicly raising concerns. In neighbour conflicts (GS2), interviewees similarly reported that people who were ignored or denied legitimacy were more likely to continue making complaints about afforestation. In large-scale conflicts, denying or ignoring concerns tended to be followed by higher numbers of media articles and complaints about afforestation; in Leitrim, it led to picketing of properties by members of the rural community who felt they had to take higher profile action to force the plantation sector and government to respond to their concerns.

These results strongly suggest that ignoring or denying the legitimacy of conflict leads to an intensification of unproductive conflict across a wide range of conflict situations, consistent with most theories of conflict response.

7.2.2 Media

The media was used as a key communication tool in all but one of the conflicts studied. It was difficult to identify the extent to which particular groups actively targeted the media and tried to sell particular messages or views via newspapers, radio or television. In all conflicts other than that involving neighbouring landholders in the Great Southern (GS2), there was evidence of both the plantation sector and critics actively involving the media as part of conflict. However, the media was used more actively in some conflicts than others.

In most conflicts, the media were initially used as a space for raising concerns, and this was followed by responses to concerns that were also reported in the media.

Use of the media to communicate about a conflict was not associated with positive change in any of the conflicts studied. Instead, when parties to a conflict communicated
primarily via expressing and responding to concerns via reports and letters in local newspapers, conflict almost invariably intensified. However, when other processes were being utilised to discuss conflict, it was common for the number of reports published about the conflict in local newspapers to fall.

The media was commonly used deliberately as a way of raising the profile of concerns held about afforestation, and so it is not surprising that exchanges in the media generally occurred during a phase of conflict intensification. As such, the media almost invariably was used as a tool to raise the profile of concerns.

7.2.3 Physical demonstrations
Physical demonstrations were used in three conflicts, and threatened in three others. The threat or use of physical demonstrations such as street marches, blockades or pickets was invariably made or undertaken when a conflict had reached a point of high intensity. In fact, they were used as a measure of conflict intensity by most interviewees, who believed this type of action was in and of itself a sign of high intensity, unproductive conflict.

The conflicts where physical demonstrations occurred or were threatened tended to have occurred over a long period, and to be more intense, than those where physical demonstrations were not used. The eight conflicts where physical demonstrations were not used or threatened all had one or all of the following characteristics:

- Alternative processes were available in which conflict could be expressed and acted on;
- The conflict occurred at a small scale and involved only a small number of people at any one time; and/or
- A successful solution was identified to the conflict within a relatively short timeframe.

For example:

- GS2 (neighbour conflicts): Individual disputes were generally short-lived and occurred at a fairly small scale;
• GS3 (fire risk and management): Concerns could be expressed to a range of government agencies – particularly local governments and FESA - and to fire management committees;

• GS5 (whole farm planting): Expression of concerns in the media was followed by the institution of responses such as development of local government policies, and public meetings and forums, to which concerns could be expressed;

• GS6 and L6 (siting of mill): In these conflicts concerns could be expressed via submissions to the organizations responsible for approving mill development;

• GS7 (transport to port): Concerns could be expressed as public meetings, and this was combined with relatively rapid resolution of the conflict when a decision to transport woodchips by rail was made; and

• GS8 (road infrastructure and safety): The TIRES group was established, providing a process in which concerns could be expressed and acted on; in addition, major road transport issues had not yet arisen at the end of the period studied.

In contrast, in situations where protests were used or threatened, there were generally no available spaces provided in which the concerns expressed could be formally – or, sometimes even informally - expressed and/or responded to. The use or threat of protest was sometimes followed by provision of these types of spaces, either in the short or the long-term. For example, in Co. Leitrim physical demonstrations were often followed by public meetings or direct discussions between protestors and those undertaking afforestation, while the threat of physical demonstrations over the condition of local roads likely played a role in achieving additional road maintenance funding.

In general, physical demonstrations were used when no alternatives were available and conflict had reached high intensity. They were not associated with successful change in conflict in the immediate short-term. However, their use was associated with subsequent implementation of alternative processes for acting on conflict – some of which were successful, and some not.
7.2.4 Adversarial processes

Classic adversarial processes – in which a third party was asked to determine who ‘won’ or ‘lost’ a dispute - were used in six of the 14 conflicts. Two of these were in the Great Southern, and four in Leitrim.

In general, adversarial processes were used where:

- The conflict was over an afforestation-related activity for which the relevant government approval procedures incorporated some form of adversarial decision process; and/or

- Conflict had intensified for some time, culminating in use of an adversarial process when other processes had failed.

For example, in both case studies it was necessary to apply for government approval to establish a mill to process plantation timber. The approval process included calling for submissions to be made about the proposal, and provisions for lodging objections to the proposed mill. In addition, it was possible to appeal a decision to approve the mill if objectors were not satisfied with the conditions placed on the approval. Interestingly, this type of approval process – which does not operate through courts – has not usually been examined in literature on adversarial conflict processes.

The eight conflicts in which adversarial processes were not used tended to be characterized by the opposite characteristics – there were no standard processes in place allowing a decision of which party was ‘right’ and which ‘wrong’; or conflict changed successfully relatively rapidly, without parties resorting to use of adversarial processes.

In several cases where adversarial processes were not used, they were suggested by one or more parties at particular stages of conflict as a tool to try to achieve co-operation from another party to the conflict. For example, the LCC threatened legal action over road damage issues, but never implemented these processes; and in the GS establishment practices conflict (GS1), ENGOs stated they would seek adversarial processes if ‘forced’ to.

Parties to conflict were generally reluctant to use adversarial processes, citing the time and expense involved as a factor preventing their use, as well as concerns that even if
they ‘won’ an adversarial process, this might not help them achieve their overall goals in the longer term, as it would not necessarily achieve the type of comprehensive change they were calling for.\textsuperscript{149}

In the six cases where adversarial processes were used, they were associated with intensification of conflict in three cases, continuation of conflict in another, some slight lessening of intensity in a fifth and an unknown outcome in a sixth:

- **GS5 (whole farm planting):** The adversarial processes used were (a) applications to establish a plantation, in which the local government was the approval authority; and (b) appeals to the relevant Minister in the State government or a tribunal if the local government’s decision was believed by the plantation grower to be unfair. These processes were used when the conflict was at its highest intensity, and were not associated with positive change in conflict;

- **GS6 (siting of mill):** The mill approval process was a form of adversarial process. The decisions made did not lead to successful change in conflict, with concerns not addressed even though the decision to approve the mill led to cessation of conflict;

- **L1 (competition for agricultural land):** Protestors were taken to court by WI in several instances. Again, this coincided with the points of highest intensity of conflict, and court decisions were not followed by a lessening or conflict, or more productive relations between groups;

- **L2 (afforestation incentives):** Complaints to the EU over provision of premiums to Coillte led to an adversarial process in which the EU decided against Coillte. As the process was ongoing at the end of the period studied, it was not possible to identify how it influenced conflict;

- **L3 (Leitrim):** Protests to the EU over EIA threshold limits triggered an adversarial process that resulted in a lowering of the EIA threshold, and a brief

\textsuperscript{149} For example, an adversarial process may only apply to a specific plantation, rather than to all plantations in a region – as such, it is not necessarily a useful process to enter into as it would need to be used repetitively to achieve desired decisions about all plantations.
reduction in intensity of the conflict. However, the decision did not meet the goals of the protesting environmental groups, and conflict continued;

- L6 (siting and operation of mill): Similar to the GS conflict over mill siting, the process of mill approval was an adversarial process. The decisions made led neither to successful change in conflict, or observable intensification of conflict.

Overall, adversarial processes were not effective in achieving successful change in conflict. All but two of the conflicts continued after adversarial processes had been used to make decisions about particular aspects of the conflict. In the other two cases (G6 and L6), conflict stopped after the outcome of an adversarial process was reached, but concerns raised by objectors to the processing facilities being proposed in these conflicts were not necessarily resolved.

In most cases, adversarial processes had little effect on conflict other than intensifying it, although this may have been a result of conflicts being at a high intensity already when an adversarial process was entered.

7.2.5 Dissemination of information and of scientific evidence

The term information dissemination is used here in a specific sense: it refers to dissemination of information aiming to reassure that there is no need for concern over particular practices or activities. In some cases, this involves providing results of specific scientific studies.

Information dissemination was used as a way of communicating about conflict issues in nine of the 14 conflicts studied. In four of these, specific scientific evidence was disseminated on the impacts of particular practices or planned activities. Dissemination of information and dissemination of scientific evidence are discussed together as scientific evidence is simply a particular type of information dissemination.

Of the five other conflicts, in one (L6 over establishment of the Masonite mill) it is not known if information dissemination was used. Three of the four remaining conflicts involved transportation issues. In these conflicts, all participants agreed on and shared similar concerns about road infrastructure, and so information dissemination trying to persuade members of the community that there was no need for concern was not
relevant. In the fourth – over the Lough Key Forest Park – there again was no denial by Coillte that improved park facilities would be desirable, and so information dissemination was not used.

In the other nine conflicts, however, there was a period in which those undertaking afforestation disseminated information aiming to convince those holding concerns that their concerns were unfounded. This arose from a strong belief that afforestation was not causing the negative impacts cited by critics.

Within the nine conflicts where information dissemination was used, it was associated with varying outcomes both across and within cases. In two conflicts, information was associated with different outcomes at different times, so that there were 11 different cases across the nine conflicts in which information dissemination was used.

A key challenge when evaluating the impacts of information dissemination is that this dissemination had clearly variable impacts. The conflict over aerial spraying in the Great Southern is a case in point. Clearly some individuals and groups were reassured by information dissemination that occurred along with changes to practices and implementation of the CCG. However, many others did not trust the information disseminated, and so concerns continued. Information dissemination was therefore successful in some cases and not in others with regard to this conflict.

Where information dissemination was used, it was associated with an intensification of conflict in four cases, no observable change in conflict in four cases, and in three cases was associated with intermittent success in achieving successful change.

The cases where information dissemination worked intermittently were neighbour (GS2), fire risk and management (GS3) and aerial spraying (GS4) conflicts in the Great Southern. All of these conflicts had a common theme: the topic of conflict was generally a biophysical or technical issues amenable to scientific exploration. Where participants could agree on the evidence about impacts of the practices over which concerns had been expressed, there was generally successful change in conflict. Where there was skepticism over the veracity of the evidence about impacts, successful change did not occur. In a fourth conflict – the conflict over establishment practices (GS1) – indisputable physical evidence of erosion occurred and led to successful change in
conflict, indicating that evidence for the existence of a negative impact was more easily accepted than evidence indicating a feared impact was not occurring or would not occur in the future.

Information dissemination resulted in no change when conflicts involved issues for which it was harder to provide verifiable evidence of impacts. For example, ‘objective’ data cannot be provided about concerns such as loss of rural identity; there was also a lack of independent data about the social and economic impacts of plantations in many cases.

Information dissemination was associated with worsening of conflict in cases where critics of afforestation believed very strongly that the information being disseminated was wrong. For example, many critics of afforestation did not believe the information being disseminated by the plantation sector about environmental impacts of plantations (L3) or the health and environmental impacts of aerial spraying (G4) was accurate. Because of this, the dissemination led to intensification of distrust and hence of conflict between some groups.

7.2.6 One-off public meetings and forums
Public meetings and forums were used in 10 of the 14 conflicts. In some cases several meeting/forums took place; in others only one. Public meetings and forums generally took the form of an advertised public meeting which was open to any interested person, but otherwise varied considerably. Some involved presentations by a series of speakers, with the meeting acting more as a form of information dissemination than an opportunity for interaction between groups. These were included in the category of ‘information dissemination’ discussed in Section 7.2.5. In other cases, however, these meetings provided opportunity for direct discussion between parties to conflict; it is these that are discussed in this section150.

In almost all cases, public meetings and public forums were associated with either intensification of conflict, or no change in conflict. They were associated with intensification of conflict:

150 Where a meeting included both information dissemination and opportunity for direct interaction between parties to a conflict, it has been included in both categories.
• when public meetings were used deliberately to raise the profile of concerns about afforestation (particularly in GS4, L1, and L2); and

• when the use of a public meeting inadvertently intensified or acted to assist continuation of unproductive conflict. For example, in conflict over whole farm planting (GS5), public meetings held to try to address concerns instead tended to reinforce the polarisation of views held by different groups.

Public meetings were only associated with positive change in conflict in two cases - and even in these, the extent to which the use of these meetings contributed to positive change is debatable. In both cases - conflict over transport of woodchips to port (GS7), and conflict over recreation facilities (L5), conflict intensity was relatively low and the different groups shared similar perceptions about some of the core issues involved in the conflict. In GS7, all agreed road congestion was a potential issue, and in L5 Coillte agreeing there was a need for construction of improved facilities in the Forest Park. In both, conflict was relatively short-lived. It is likely that public meetings were associated with positive change in conflict because parties to conflict had already developed reasonably good relationships, enabling them to use this type of communication space more effectively than would have occurred if there was a higher degree of polarization between groups in the conflict.

7.2.7 Petitions and formal complaints to authorities

In many conflicts, critics of afforestation submitted formal complaints or petitions to government authorities as a way of communicating their concerns over afforestation. Similarly, members of the plantation sector submitted documents detailing the reasons they believed concerns were not valid, or calling for more support of afforestation.

It was not possible to evaluate whether these actions were associated with positive change in conflict, for three reasons:

• The timing of discussions with government authorities was not possible to determine in many cases, nor the number of times particular groups sent delegations, letters, petitions or other communications to government authorities;
Where the timing of visits could be determined, it became apparent that in many conflicts numerous visits and discussions were held with government authorities throughout the conflict – including when conflict was intensifying, not noticeably changing, and changing positively; and

It was not possible to determine how influential these communications were in encouraging subsequent actions such as government inquiries, changes in regulation or changes in incentives.

For these reasons, no attempt is made to assess whether this type of action was related to successful change in conflict. It did act to raise awareness of concerns in several conflicts, and hence was likely influential in intensifying conflict; beyond this, the role of this type of communication cannot be assessed.

7.2.8 Broaden consultation and/or participation in decision making processes
The strategies of broadening consultation and/or participation in decision making processes are discussed together, as they effectively formed a continuum of increasing access to decision making processes that could not be easily split into two separate categories, and resulted in similar types of change when used as part of a conflict.

‘Broadening consultation’ refers to situations in which a wider range of groups were consulted during a decision-making process, but authority to make the ultimate decision remained with a single stakeholder – usually a government agency or a plantation company/agency. For example, when plantation companies began to notify neighbours of planned activities prior to undertaking them and provided opportunity for neighbour to discuss concerns (GS2), this represented a broadening of consultation.

‘Broadening participation’ in decision making, however, refers to providing more groups power over decision making. In most cases, the extent to which additional groups were provided opportunity to directly participate in decision-making was still relatively limited, and formal power to make decisions still rested with a single authority. However, there is clear evidence that in many cases, those who had the authority to make decisions would not make a decision unless it was agreed to by other groups, representing an effective increase in the participation of these other groups over the ultimate decision. For example, some plantation companies in the GS would not
aerially spray plantations unless neighbouring landholders had indicated they were willing for the spraying to be undertaken (these companies would use alternative spraying methods, such as ground misting, in these cases).

In eight of the 12 conflicts in which it was used, the broadening of consultation and/or participation in decision making was associated with positive change in conflict.

In two others – the conflicts over mill siting in each case study region (GS6 and L6) - no meaningful broadening of consultation was attempted, most likely because the existing approval processes were considered to provide an opportunity for concerns to be raised, even though they did not provide space for direct interaction between groups.

Of the two remaining conflicts:

- GS3 (fire risk and management): Broadening of consultation via institution of management and advisory committees was not associated with observable change in intensity of conflict. It is possible that the broader consultation prevented escalation of conflict, as it was instituted fairly rapidly after plantation establishment increased in the region. Hence, although concern did not necessarily diminish, broadening consultation may have played a positive role in preventing escalation of unproductive conflict; and

- GS5 (whole farm planting): Broadening of consultation through calling for input to revisions to the PSC’s planning policies was not associated with successful change in conflict, and in fact conflict intensified during the consultation process.

In addition, broadening consultation and/or participation was not always successful in the case of neighbour conflicts (GS2).

In two of the three cases where broadening of consultation and/or participation in decision making was not successful (GS2 and GS4), lack of success was associated with failure of parties to agree on actions that could be taken to address concerns. This is discussed further when reframing attempts – usually associated with broadening of consultation or participation in decision making – are examined below.
7.2.9 Management and advisory committees

In three conflicts – GS3 (fire risk and management), GS4 (aerial spraying) and GS8 (road infrastructure and safety) - stakeholder committees were established which provided a space for conflict parties to act on the substantive issues of conflict. These are discussed as a specific type of conflict response, as these committees were a distinctly structured process involving interaction between appointed representatives of different groups, whereas other processes generally provided opportunity for input from a larger number of people. These are also discussed separately to other types of processes as theories of conflict response do not generally identify committees as a specific type of process through which conflict is acted on.

Committees generally take the form of a small group of representatives who are tasked to achieve specified objectives of goals. Two of the three committees identified in this study (GS3 and GS8) did not have an objective or goal of addressing conflict. The third – the CCG discussing aerial spraying issues (GS4) – had multiple goals, one of which was trying to resolve disagreement between the groups represented on the committee.

The primary objective of the committees in all three conflicts was to achieve agreement on and facilitate the actions required to achieve, respectively, adequate management of fire risk, adequate regulation of aerial spraying, and adequate investment in road infrastructure. In GS3 and GS8, the committees did not involve specific attempts to facilitate consensus or improve communication between groups – they focused on achieving outcomes as outlined above. In the case of aerial spraying (GS4), there was an active attempt to facilitate improved communication between the groups represented on the committee.

In all three cases, institution and operation of the committees was associated with positive change in conflict, despite not being designed as a method of addressing conflict. In the case of conflict over fire risk and management, while the conflict overall did not decrease in intensity over time, it also did not increase in intensity, and interviewees pointed to the existence of a number of management and advisory committees as a key space in which concerns were regularly addressed, preventing
conflict intensification. For this reason, the committees are presented here as being associated with a positive conflict outcome.

However, two of the three conflicts – GS3 and GS8 - were of relatively low intensity. This may have been a factor that contributed to positive communication between groups on these committees. In conflict over aerial spraying (GS4), however, conflict was of much higher intensity, and the positive change in the conflict was limited compared to the other two.

Although the differing levels of conflict intensity may have contributed to the successful outcomes associated with institution of these committees, the space provided by the committee to communicate and act on conflict related issues was clearly an important factor. Several interviewees believed that, although conflict over aerial spraying only experienced partial successful change, the use of the CCG was key to achieving improved communication between groups which was associated with the limited positive change that was achieved.

7.2.10 Use of a third party to facilitate communication

While many attempts were made to improve communication between the groups involved in several the conflicts studied, they rarely involved use of a third party to facilitate communication. The formal or informal use of facilitative third parties only occurred in two conflicts: aerial spraying (GS4), where an independent facilitator chaired the CCG; and competition for agricultural land (L1), where the IFA facilitated negotiation between farmers and plantation companies when a company proposed to purchase land.

In both cases, use of a third party to facilitate communication was associated with positive change in conflict. In the case of aerial spraying, this positive change was limited, with some concerns continuing. In the case of competition for agricultural land, the facilitation was associated with more consistent positive change in conflict, with ongoing facilitation whenever land purchase was proposed enabling solutions to be negotiated that suited all.

From the discussion above, it is clear that improved consultation and participation in the absence of a facilitator can be associated with positive change in conflict. This raises the
question of whether it was the presence of a facilitator, or the improved direct communication in general, that resulted in positive change in the two conflicts where third party facilitation occurred.

In both conflicts, interviewees specifically stated that the presence of facilitators assisted the different groups to develop better communication and find solutions. Therefore, while it is possible to achieve positive change without this independent facilitation – in other words, facilitation is not necessary to achieve positive change - the use of third parties may more rapidly lead to successful change in conflict than would have occurred otherwise.

7.2.11 Reframe problems

A key recommendation of most conflict theorists is that successful change in conflict requires ‘reframing’ the problems of conflict to achieve a shared understanding of issues and possible solutions to those issues. Several processes have been suggested for facilitating reframing; it is also possible that reframing may be achieved without the use of these recommended processes.

A process aimed specifically at achieving reframing of conflict was only put in place in one conflict – conflict over aerial spraying (GS4), where the CCG was established to address issues over which there was disagreement. Even in this case, the objective of the CCG was not primarily to achieve reframing, although the process used clearly aimed to achieve its goals through facilitating a shared understanding of the conflict.

Although specific processes were not used to try to achieve reframing, there is considerable evidence that a shared understanding of conflict was achieved in several other conflicts. These are discussed in this section, with a focus on identifying what processes were in place that assisted groups to achieve reframing.

In total, five conflicts were identified in which processes were used that assisted group to reframe their understanding of the conflict to at least some extent, even if that was not the primary or stated purpose of the process:

- GS2 (neighbour conflicts): The process of early consultation with neighbours provided an opportunity for both plantation companies and neighbours to develop a
shared agreement about the issues of conflict. In some cases, this led to successful change in conflict, with plantation companies and neighbouring landholders finding mutually acceptable solutions to concerns over planned plantation management activities. However, in some cases shared solutions were not developed. This primarily occurred when the plantation grower and their neighbours could not agree on how a particular activity should be undertaken in a way that accommodated the needs and concerns of both;

- GS3 (fire risk and management): Opportunities for reframing were provided in the committees that met to discuss fire management issues. As previously argued, while conflict did not stop or decrease in intensity, it did not increase in intensity and remained fairly stable, indicating that these committees were providing a space in which different groups could work together and find mutual solutions to fire risk issues on an ongoing basis;

- GS4 (aerial spraying): Those who participated in the CCG clearly achieved some reframing and shared understanding of issues, and agreement on some mutually acceptable solutions. However, this shared understanding did not extend to those not taking part in the CCG, with concerns continuing outside the group;

- GS8 (road infrastructure and safety): In this conflict, the establishment of TIRES enabled all stakeholder groups to worked together to identify and try to achieve shared goals. However, those shared goals (achieving required road funding) had not been achieved at the end of the period studied\(^1\);

- L1 (competition for agricultural land): Reframing was achieved between private plantation companies and landholders in many cases, with mutually agreeable solutions identified. For example, the use of land swaps, and designing plantations so the trees would not shade neighbouring houses, were examples of mutually

\(^1\) In contrast, no equivalent process to TIRES was put in place in the road conflict in Leitrim (L4), which escalated considerably at various points compared to the WA conflict. The difference in intensity of the two conflicts may have partly resulted from lack of an appropriate process in the Leitrim conflict, although it is also likely to be partly because by the end of the period studied there was still relatively little usage of roads by logging traffic, with harvesting of plantations set to expand rapidly in coming years.
acceptable solutions. These negotiations were facilitated by the IFA in many, but not all, cases;

In general, reframing was successful where participants were able to reach solutions that satisfied all. This relatively simple statement leads to the question: why couldn’t mutually satisfactory solutions always be found? Clearly in some cases – particularly some neighbour conflicts, and aerial spraying conflict – reframing could not be achieved even when opportunities were provided for meaningful communication between conflict parties.

In most of the cases above, reframing was only sometimes successful. In some other conflicts, attempts to reframe conflict were always unsuccessful. In particular, attempts to achieve a shared solution to whole farm planting concerns in the Great Southern did not achieve success. In cases where reframing was attempted but not always successful, two primary reasons were identified for lack of success.

Firstly, as predicted by the conflict response literature reviewed in Chapter 2, in some cases reframing was achieved by representatives of conflicting groups who met to discuss issues, but not by the broader membership of the groups they represented. As a result, conflict continued. This occurred in aerial spraying conflict in the Great Southern. The second issue, however, has not generally been confronted in the conflict literature – perhaps because it presents a considerably greater challenge to theories recommending processes for responding to conflict. In several cases, conflicting parties were simply unable to find a mutually acceptable shared solution that did not cause perceived harm to one party, and this failure was not identifiably the result of poor communication but rather related to (a) differences in worldviews and value systems that could not be resolved, and (b) the need for action to be taken that was beyond the power or influence of the actors involved in the conflict.

In the case of aerial spraying in the Great Southern, vocal critics called for a ban on all aerial spraying. Most members of the plantation sector, however, strongly believed that, while some changes could be made to the methods and/or chemical mix used when aerial spraying, in some situations they had no economically viable alternative to aerial spraying of plantations. They also strongly disagreed with the arguments of the critics,
with fundamental differences of view about the health and environmental risks of aerial spraying. As a result, many members of the plantation sector were unable and unwilling to meet the demand for a complete stop to spraying. While some of those who called for a complete ban appeared to change their views to some extent, others did not, and so conflict continued.

In the case of neighbour conflicts in the Great Southern, a similar difference in view about what action could and should be taken was reported as the source of failure to reach agreement in some cases. Plantation sector employees reported that consultation with neighbours tended to be unsuccessful in cases where the neighbour requested plantation management changes that would considerably lower the economic return from the plantation. For example, one interviewee discussed a situation in which a neighbour requested that a 100 metre buffer zone be established between the boundary of his property and the plantation that was to be established next door. If this request had been followed, the area of plantation established would have decreased by over 20% across the property, and a substantial loss would be made on the plantation by harvest time. Given the need to maintain profitability for their businesses to survive, the plantation company was not able to meet the neighbour's request, and conflict was unresolved.

In conflict over whole-farm planting, the most common solution suggested was a shift to smaller-scale, integrated plantings. However, again there were real barriers to implementing these changes. Two in particular stood out: to make an economic return from a plantation, companies had to establish a minimum area in any one planting, making smaller scale afforestation less profitable; and secondly, many farmers chose to sell or lease their whole property for afforestation, rather than only a part of it. The pressures driving establishment of large-scale plantations can be traced to the need to sell wood products into a highly competitive global marketplace – it is only if this pressure were removed that the plantation sector to be able to shift to smaller scale, more diverse plantings.

In the case of both conflicts over road infrastructure (GS8 and L4), those involved in the conflict all agreed that the solution was to achieve increased funding for road
infrastructure. However, the provision of increased funding was again not possible for any of the groups involved (although in Co. Leitrim, the LCC believed that the plantation sector should or could provide funding).

These examples indicate that the expectations of different parties about the extent to which another could change played a role in the failure of reframing attempts. In particular, where one party failed to recognise the constraints faced by another party, unrealistic demands were made which the other party could not meet. In some cases, mutually acceptable solutions were identified, but could not be implemented by any of the parties to the conflict as none had the ability to achieve the changes identified.
7.3 Actions used to respond to conflict

Table 7.2 summarises the conflict outcomes associated with the implementation of different actions taken in response to conflict. The term 'action' refers to making changes that resulted in a shift in how afforestation was undertaken, plantations were managed and/or harvesting and processing related activities took place. Whereas the previous section discussed communication processes, this section discusses the actions implemented as a result of communication of concerns.

The types of actions examined were identified both from the literature review (particularly Chapter 3, where a number of specific actions were recommended as solutions to afforestation conflict), and from the data collected on each of the 14 conflicts studied.

In some cases, actions were defined by how they were implemented – for example, an action might involve the implementation of voluntary regulations, but the content of those regulations varied in different conflicts.

In other cases, actions were defined based on the type of change being made to afforestation – for example, one action identified was shifting to farmers undertaking afforestation rather than afforestation companies.

The different categories sometimes overlap. For example, the broad category of 'change practices/take action' includes many types of actions also described more specifically in other categories. However, by comparing it to these other categories, it is possible to identify whether it is the characteristic of 'taking action', or the way that action is implemented (as specified in several of the other categories), that is associated with particular types of change in conflict.
Table 7-2: Changes in conflict associated with different actions used to respond to conflict

<table>
<thead>
<tr>
<th>Action taken to respond to conflict</th>
<th>Was this conflict response associated with positive change in conflict</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>GS1</td>
</tr>
<tr>
<td>Reduce competition for land/resources</td>
<td>n/a</td>
</tr>
<tr>
<td>Obtain scientific evidence and act</td>
<td>✓</td>
</tr>
<tr>
<td>Change regulation of practices (voluntary)</td>
<td>✓</td>
</tr>
<tr>
<td>Change regulation of practices (government)</td>
<td>✓</td>
</tr>
<tr>
<td>Government strategies/policies placing conditions on approving afforestation, e.g. local government</td>
<td>n/a</td>
</tr>
<tr>
<td>Change incentives</td>
<td>n/a</td>
</tr>
<tr>
<td>Establish smaller scale and/or more diverse plantations</td>
<td>n/a</td>
</tr>
<tr>
<td>Change practices/take action to fix an identified problem</td>
<td>√</td>
</tr>
<tr>
<td>Shift to more farmers undertaking afforestation</td>
<td>n/a</td>
</tr>
<tr>
<td>Transformation of underlying structures/broader conflicts</td>
<td>n/ach</td>
</tr>
<tr>
<td>Slower rate of afforestation</td>
<td>n/a</td>
</tr>
</tbody>
</table>

Unshaded cell indicates action was used in this conflict
✓ = Positive change in conflict (lim = limited)
× = Negative change in conflict
? = No observable change in conflict
? = Not possible to evaluate change

Shaded cells indicate action was not used in this conflict
n/a = Response was not applicable to that conflict
n/u = Response was not used
n/ach = Action proposed/introduced but not fully implemented

GS1 = Establishment practices
GS2 = Neighbour conflicts
GS3 = Fire risk and management
GS4 = Aerial spraying
GS5 = Whole-farm planting
GS6 = Siting mill
GS7 = Transport to port
GS8 = Road infrastructure and safety
L1 = Competition for agricultural land
L2 = Afforestation incentives
L3 = Environmental impact
L4 = Road infrastructure and safety
L5 = Recreation facilities
L6 = Siting and operation of mill
7.3.1 Reduce competition for land/ resources

In three of the conflicts studied, policies were either put in place that aimed to reduce competition for agricultural land by the farming and plantation sectors, or there was a shift in the way afforestation was undertaken that led to increased competition for agricultural land. All three were conflicts over the socio-economic impacts of plantations, which related to perceptions of rural identity and culture:

- GS5 (whole farm planting): Conflict intensified when there was a shift from afforestation based on leasing a proportion of a farmer’s property to the afforestation of ‘whole farms’. Effectively, the leasing of only part of a property ensured the plantation sector was not directly competing with the agricultural sector for access to land, as often plantations were established on areas of lower utility for agricultural production while farming continued on the rest of the property. The shift to whole-farm planting effectively represented the introduction of more direct and intense competition for land – which grew as the rate of afforestation increased in the region through the mid to late 1990s. This increased competition was clearly associated with intensification of conflict;

- L1 (competition for agricultural land): When farmers were provided an annual income in return for afforesting their land, this lessened the perceived competition between afforestation companies and farmers for land, as more farmers afforested their own land. This was associated with successful change in conflict, although concerns about the purchase of land by afforestation companies and Coillte continued; and

- L2 (afforestation incentives): The introduction of, and gradual increase in, differential grants and premiums for ‘farmers’ and ‘non-farmers’, was associated with some successful change in conflict. However, concerns about non-farmers having what was believed to be ‘unfair advantage’ in purchasing land led to calls for increase in the differential of the grants and premiums made available, and to calls for grants and premiums to be made available only to farmers.
In other conflicts, attempts to reduce competition for resources were not generally made\(^\text{152}\).

In all three cases reviewed, increased demand for agricultural land from ‘non-farmers’ such as plantation companies was perceived as representing increased competition for land, and was associated with intensification of conflict. The provision of increased incentives for farmers to afforest reduced this perceived competition, and hence the intensity of conflict.

The competition for resources in all three cases took the form of the farming sector perceiving afforestation as a threat to their beliefs about who should own land, and what uses that land should be put to. In other words, the concern was not about how many people were competing to purchase land, but who was competing. The debate also focused on perceptions about the fairness or equality of access to land, with afforestation companies commonly perceived by critics to have an ‘unfair advantage’ when purchasing land. This interpretation seems clearly linked to the construction of rural identity and culture via ownership of agricultural land, with demand for land from non-farmers threatening the identity and culture of many living in rural communities, as well as being perceived as a material threat to possession of land.

### 7.3.2 Obtain scientific evidence and act

In five conflicts, scientific evidence was obtained and used as the basis of changing how afforestation was undertaken\(^\text{153}\).

A range of outcomes were associated with this action:

- GS1 (establishment practices): evidence of erosion led to action to prevent erosion that was clearly associated with successful change in conflict;
- GS4 (aerial spraying): Alteration of spraying practices in response to scientific evidence did not lead to noticeable change in conflict – other actions were more

\(^{152}\) It should be pointed out that the action of involving more people in decision-making represents a sharing of control that can be interpreted as a way of reducing competition over control of resources. As this strategy is discussed elsewhere, it is not examined here.

\(^{153}\) In other cases, scientific evidence was reviewed and it was decided no action was needed. In these cases, information dissemination was usually then used to try to convince other groups there was no need for action, as discussed in Section 7.2.
influential. Scientific evidence on impacts of aerial spraying remained contested to the end of the period studied;

- **L3 (environmental impact):** Scientific evidence about the impacts of afforestation and plantation management practices on the environment were contested throughout this conflict. Changes made on the basis of scientific evidence was associated with some limited positive change in conflict, but did not fully meet the goals of critics who argued the evidence indicated that considerably more changes needed to be implemented; and

- **GS8, L4 (road infrastructure and safety):** In both conflicts, evidence was obtained that assessed the funds required to maintain and upgrade road infrastructure, but the funds needed to undertake the maintenance and upgrading work identified in the scientific reports could not be obtained.

A key factor affecting conflict outcomes when action was taken on the basis of scientific evidence was the extent to which that scientific evidence was contested. In the case of conflict over establishment practices in the Great Southern, the scientific evidence of erosion was indisputable to all parties. However, in the case of aerial spraying, and of environmental concerns in Ireland, evidence remained disputed. As a result, actions taken by the government or the plantation sector based on their interpretation of that evidence – e.g. using different chemicals, or placing restrictions on particular practices – were not considered adequate by other groups who had differing interpretations of the scientific evidence, and conflict continued.

Another factor affecting outcomes was simply whether action was taken – in the case of road infrastructure and safety, undisputed evidence was developed on the work required to maintain and upgrade local road networks, but action was not taken due to a lack of resourcing for the roadworks.

**7.3.3 Introduce voluntary regulations requiring changed practices**

In five conflicts, some form of new voluntary regulation was introduced during the course of the conflict. In all cases, the voluntary regulation involved a change in practices that addressed concerns expressed as part of the conflict.
In eight other conflicts, voluntary regulations were not changed significantly during the period studied; while in the final conflict (GS3 – fire risk and management) a number of voluntary regulations were introduced in different parts of the region by different groups, and it was not possible to distinguish their impacts.

Positive change was observed in four of the five conflicts in which voluntary regulations were introduced or changed significantly:

- **GS1 (establishment practices):** Successful change in conflict occurred after CALM changed its internal regulation of establishment practices;
- **GS2 and GS4 (neighbour conflicts and aerial spraying):** Most Great Southern plantation sector companies committed to notifying neighbours of planned activities and guaranteed to provide a minimum level of consultation with neighbours prior to undertaking activities. This was followed by positive change in conflict; and
- **GS8 (road safety):** The plantation sector voluntarily placed restrictions on when and how log trucks would use roads when school buses were traveling, and this was associated with positive change in conflict.

In the other conflict – L3 (environmental impacts) – voluntary certification was being introduced at the end of the period studied, but was not in place for a long enough period for its effects on conflict to be assessed.

### 7.3.4 Introduce changes to government regulations

In seven conflicts, government changed how afforestation was regulated during the period studied. This took the form of either changing the regulation of plantation management, or changing the conditions under which approval would be granted for afforestation to occur.\(^{154}\) Changed conditions for approving afforestation were implemented in five conflicts, while changed government regulation of plantation industry practices (i.e. management of established plantations) was implemented in four

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\(^{154}\) In the Great Southern, the latter took the form of local government approval to afforest land, while in Co. Leitrim it took the form of the Forestry Service approving payment of grants and premiums rather than permitting the actual afforestation. However, as almost no afforestation occurred unless supported by grant and premiums, the latter effectively acted as an afforestation approval process.
conflicts\textsuperscript{155}. In total, one or the other of these changes was implemented in seven conflicts. The two categories are discussed together as both involve government placing conditions or boundaries on how and what types of afforestation, or plantation management activities, may be undertaken by the plantation sector.

Evidence of positive change to conflict was only observed in two of the seven cases where government changes were implemented – and in one of these, positive change was only noticed occasionally\textsuperscript{156}.

Of these seven cases, successful change in conflict was observed in association with changed government regulation in only one case – GS1 (establishment practices). In this conflict, the Department of Agriculture worked with CALM to improve mounding practices, and the initially voluntary changes were later effectively included in government regulation via the development of a code of practice, with which compliance was a condition of afforestation approvals for many local governments.

In most other cases there was no observable change in conflict associated with changes in government regulation, with the exception of:

- GS4 (whole-farm planting): When local governments began imposing more restrictions on approving afforestation than they had previously, several plantation companies appealed the decisions and conflict intensified; and

- L3 (environmental impact): In some cases, new regulations placed on afforestation were considered so inadequate by ENGOs that they were associated with an intensification of campaigning for change.

The most common explanation offered by interviewees for the lack of change in conflict when government regulations were changed was that the changes implemented either failed to fully address the concerns of critics of afforestation, or were objected to by members of the plantation sector. In both cases, the changes in regulation led either to no observable change in, or an intensification of, conflict.

\textsuperscript{155} Note that this category does not include conditions placed on provision of incentives for afforestation in Ireland.

\textsuperscript{156} When conditions on which grant and premium rates were provided were changed in Ireland, some positive change was observed on some occasions but not on others.
7.3.5 Change incentives

In three related conflicts – L1, L2 and L3 – changes were made to the incentives in place to encourage afforestation, as a response to concerns raised in these conflicts:

- L1 (competition for agricultural land): The introduction of annual premium payments and increased grants to undertake afforestation was one of the key factors associated with positive change in conflict;

- L2 (afforestation incentives): The repeated increases in grants and premiums, together with an increasing differential in the payments available to farmers and ‘non-farmers’, was associated with some positive change in this conflict, although the size of the difference, and the issue of whether non-farmers should receive incentives, remained contentious; and

- L3 (environmental impacts): The incentives provided to those undertaking afforestation were changed so higher payments were provided for afforestation believed to have greater environmental benefits – e.g. broadleaf plantings attracted higher grant and premiums payments than establishment of exotic coniferous species. These changes were associated with some positive change in conflict, although usually short lived as critics of afforestation believed the changes were not comprehensive enough.

In the latter two conflicts, lack of comprehensive successful change in conflict was largely a result of the changes failing to satisfy one or more groups involved in the conflict.

7.3.6 Establish smaller scale and/or more diverse afforestation undertaken by farmers

In three conflicts, a shift to encouraging smaller scale and/or more diverse plantations was implemented. In two of these, a shift to encouraging afforestation by farmers

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157 While the tax deductibility of plantations was changed in the Great Southern in 1999 to 2000, and this changed may have exacerbated conflict as a result of bringing forward planned plantings, it is not discussed here as it was not implemented with a goal of acting on concerns raised in any of the conflicts. The impact of rapid increases in afforestation is discussed, which effectively discusses the implications of these changes to tax deductibility.
occurred at the same time. In all three cases, this shift was associated with at least some
limited positive change in conflict:

- **L1**: In Co. Leitrim, the shift to farmer-based afforestation, and to more diverse
  afforestation was associated with positive change in conflicts over afforestation
  of agricultural land, conflicts over grant and premium levels and provision, and
  conflict over environmental impacts of afforestation.

- **L1 and L2 (competition for agricultural land)**: Changes to incentives
  encouraging smaller-scale plantings by farmers were associated with positive
  change in conflict;

- **L3 (environmental impact)**: Changes to incentives and to regulations requiring
  more diverse species to be planted were associated with limited positive change
  to conflict, although concerns continued.

In addition, in GS4 (whole farm plantations), conflict only arose after a shift had
occurred away from smaller scale plantings integrated into farm enterprises and towards
whole farm planting.

This indicates that, in all conflicts, afforestation by (a) farmers and (b) of smaller areas
was associated with less conflict than larger scale afforestation undertaken by
companies. When asked why this type of planting was preferred, interviewees gave a
range of responses. Most related to their perceptions of rural landscape, culture and
identity. In Co. Leitrim, for example, one interviewee explained how she had felt unable
to protest about afforestation when undertaken by a farmer, because ‘everyone wants to
support farmers to stay on the land’ (Afforestation protestor # L3). Companies and
agencies undertaking afforestation were viewed as outsiders whose actions changed the
nature of the rural community, whereas afforestation by farmers was seen as a potential
means of preserving the rural community, culture and identity. Smaller scale plantings
were commonly described as fitting better into the agricultural landscape, and so
similarly did not threaten the identity of rural cultures by changing the physical settings
in which communities lived.
7.3.7 Change practices/take action to address identified problems

In 13 of the 14 conflicts, some type of action was taken to address problem identified as resulting from afforestation or plantation management. These actions varied considerably and were implemented using a range of mechanisms, including those discussed in Sections 7.3.1 to 7.3.6 above. This category overlaps with most of those discussed above, but is useful to examine as it asks the question ‘what was more important – taking action, or the mechanism by which action was implemented?’ Were actions more successful if they were implemented through voluntary than government regulation? Or was the key factor simply that action was taken that addressed an identified problem?

In 10 of the 13 conflicts where some type of identifiable action was taken to respond to concerns, at least some successful shift in conflict occurred, although sometimes only in the short-term:

- GS1 (establishment practices): Changing mounding practices led to effective cessation of concern over that specific issue;
- GS2, GS4 (neighbour conflicts/aerial spraying): Changing practices in many cases led to positive change in relations between plantation managers and their neighbours;
- GS7 (transport to port): Taking action to construct a railway successfully addressed concerns over transport of woodchips from the APEC woodmill mill to Albany Port;
- L1, L2 (competition for agricultural land/afforestation incentives): Action was taken to change who undertook afforestation, and this was associated with positive change in conflict;
- L3 (environmental impact): Action was taken to change both the species used for afforestation, and where afforestation could take place. While conflict did continue, these changes were associated with some limited, short-term positive change in conflict;
L4 (road infrastructure and safety): There was a short period during this conflict when the LCC received additional funding for road maintenance. During this period the level of concern over this issue dropped substantially;

L5 (recreation facilities): When action was taken to plan and establish new recreational facilities, conflict changed positively; and

L6 (siting and operation of mill): Although the overall conflict overall did not change positively, some of the actions taken to change how the mill would be established led to positive change in the form of objections to the mill being withdrawn.

In the other three conflicts, it was not possible to evaluate the impact if any of actions taken to respond to conflict. It must be emphasised that for some of the conflicts above, the successful change in conflict was short lived after implementation of a change, with further issues occurring. In others, actions were only taken sometimes – e.g. in neighbour conflict, the actions desired by neighbours were not always implemented.

In general, actions were less successful, or successful for a shorter time, where they only partly addressed the concerns of critics of afforestation. In other cases, actions could not be taken because it was not possible for the plantation sector to make the changes desired by critics (as discussed above).

7.3.8 Transformation of underlying structures/broader conflicts

It was not possible to evaluate whether transformation of broader issues/conflicts led to change in afforestation conflict. In most cases, transformation of underlying social and economic conditions or broader conflicts that were producing afforestation conflict was not achieved, as was discussed in Chapters 5 and 6. It was also challenging to identify underlying factors/broader conflicts that were agreed by all interviewees to have been associated with occurrence of conflict over afforestation.

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158 In two cases, the action was only implemented at the end of the period studied and its effect, if any, on conflict could not be evaluated. In the other case, GS3 (fire risk and management) multiple actions were taken in different areas and by different companies, and it was not possible to specifically evaluate the impacts of the different actions.
In Section 7.4, the broad socio-economic conditions and institutional structures used in the two case study regions are examined to identify whether any of these were associated with particular conflict outcomes. This examination effectively looks at what may be some of the underlying or broader issues that have potential to affect conflict over afforestation.

7.3.9 Slowing the rate of afforestation

Several interview respondents suggested that the intensity of some types of conflict – those related to establishing and growing plantations - fell when the rate of afforestation slowed and rose when the rate of afforestation increased.

Of the eight conflicts over aspects of establishing and growing plantations, one – GS1 (establishment practices) was too short-lived for a change in rates of afforestation to have occurred during the course of the conflict. Of the remaining seven:

- No change in conflict was observed when rates of afforestation rose or fell in four conflicts – neighbour conflicts (GS2), fire management issues (GS3), concerns over levels of grants and premiums (L2) and concerns over environmental impacts (L3);

- It was not possible to evaluate if levels of conflict over aerial spraying fell when afforestation rates fell in the Great Southern (GS4), as the rate of afforestation fell only at the end of the period studied and the conflict occurred over a relatively short period;

- Lower rates of afforestation were sometimes associated with reduced concern over afforestation in the case of whole-farm planting conflict in the Great Southern (GS5) and competition for agricultural land in Co. Leitirin (L1).

A relationship between lower afforestation rates and lower levels of conflict was therefore only found in conflicts which focused on socioeconomic impacts of large-scale afforestation.
7.4 Characteristics of conflict

Theories about the nature and setting of conflict reviewed in Chapter 2 suggested a range of factors that may affect the success of particular processes and actions taken to respond to conflict, as did the analysis in Sections 7.2 and 7.3 of relationships between conflict outcomes and specific types of processes and actions used in conflicts.

The characteristics identified from the literature and the data gathered for the study as potentially influencing conflict outcomes fell into the categories of:

- The topic of conflict;
- The parties involved in conflict;
- The scale at which conflict occurred;
- The cause/s of conflict;
- The intensity of conflict; and
- The social, economic and/or physical settings of conflict;

This section examines whether particular characteristics of conflicts, or of the socioeconomic and physical settings in which conflict took place, were associated with particular conflict outcomes.

However, it was not always easy to identify meaningful categorisations of each of the characteristics listed above that could be used to compare conflicts. Categorisations were sometimes contested – for example, different conflict participants commonly had different beliefs about what had caused conflict, making it difficult to identify agreed causes of individual conflicts.

Table 7.3 presents the categorisations developed for each of the characteristics listed above, as well as an evaluation of the extent to which it was possible to meaningfully compare the characteristic across conflicts. The following sections then compare conflicts based on these different types of characteristics.
Table 7-3: Developing meaningful categorisations for analysis of different conflict characteristics

<table>
<thead>
<tr>
<th>Theme</th>
<th>Categories developed under the theme</th>
<th>Could this difference be identified?</th>
</tr>
</thead>
<tbody>
<tr>
<td>Topic of conflict</td>
<td>The following categorisations had least overlap with each other in terms of types of actors and nature of issues discussed in the conflict:</td>
<td>Yes – although a small number of conflicts could be categorised into more than one topic.</td>
</tr>
</tbody>
</table>
|                            | • Conflict over environmental impacts of plantations (GS1, GS2, GS4, L3)  
  • Conflict over biophysical impacts of plantations not necessarily involving perceptions/fear of environmental degradation (GS2, GS3)  
  • Conflict over socio-economic impacts of plantations (GS5, L1, L2)  
  • Conflict over impacts of processing infrastructure (GS6, L6)  
  • Conflict over provision of support infrastructure (GS7, GS8, L4, L5)                                                                 |                                      |
| Parties involved in conflict | It was difficult to develop appropriate categories for this theme, as most conflicts – with the exception of neighbour conflict – typically involved several groups, with a range of different people involved in the same conflicts over time. This provided little potential for differentiation based on number of actors involved in any conflict. However, it was possible to identify the broad types of actors:  
  • Plantation growers (government and private sector, with little differentiation between the two for most conflicts)  
  • Plantation processors  
  • Local government  
  • Farmers and farmer/agricultural industry representative groups  
  • Rural residents other than farmers  
  • Environmental groups  
  • Government agencies other than local government                                                                 | Yes                                  |
| Scale of conflict          | When developing a categorisation, several scale-related questions were identified:                                                                                                                                                    | Yes, although it was difficult to identify scales in some cases. These are discussed in the analysis below. |
|                            | • At what scale are concerns expressed (At a neighbour scale? At a local government scale? Across a region? Across a nation?)  
  • At what scale do the impacts over which concerns are expressed occur (e.g. will a fire occur only on a single property, or at regional scale? How large an area will a perceived social and environmental impact occur at?)  
  • What scale did actors involved in conflict have the power to act at?  
  • Did the scale at which concerns were expressed match that at which concerns could be acted on?  
  Categorising scale in these ways was complex, sometimes nationwide concerns were expressed over a perceived impact which would occur at a local scale, and vice versa. Three scales were identified into which all four measures above could be categorised: |                                      |
Causes of conflict

Intensity of conflict

Social, economic and physical setting of conflict

<table>
<thead>
<tr>
<th>Theme</th>
<th>Categories developed under the theme</th>
<th>Could this difference be identified?</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Neighbour scale: issues occurring at the scale of the individual plantation property; Region scale: impacts occurring across a small region such as a local government area (and up to several local government areas); and State/National scale: Impacts expressed or acted on across a nation (e.g. Ireland) or state (e.g. Western Australia). Trying to refine scale more precisely was not possible as it led to arbitrary judgments about which scale an issue would fall into.</td>
<td>No</td>
</tr>
<tr>
<td></td>
<td>When asked what had caused particular conflicts, multiple causes were often cited by different parties to conflict. There was often disagreement about the ultimate cause of conflict. While triggers for conflicts were identified in Chapters 4 and 5, these are not necessarily the same as the underlying cause of conflict. Because of these problems, conflicts could not be categorised and compared based on the cause of conflict.</td>
<td>Yes</td>
</tr>
<tr>
<td></td>
<td>The intensity of most conflicts changed over time. Conflicts were categorised by the highest point of intensity reached during the period studied, and were categorised into: Low intensity: relations between groups have not reached levels of open hostility; media reports generally focus on issue rather than on debate over which groups are at fault; Medium intensity: relations between groups poor. Relatively little productive communication. Use of media and complaints to authorities to act on conflict. Public meetings may be held; High intensity: Protest acts including active demonstrations, petitions, sometimes physical damage or threats of violence. Active hostility between groups. Ongoing high profile debates in media. Public meetings and forums involve considerable disagreement and hostile exchanges. Attempting any more detailed categorisation would have resulted in loss of clarity, as it would have created relatively meaningless boundaries between different levels of intensity that could not be clearly identified in the conflicts studied.</td>
<td></td>
</tr>
<tr>
<td></td>
<td>A key challenge with this type of measure was that there were only two case study regions and so, at any given point in time, there could be only two social/economic/physical settings to compare. However, the relatively long time frame studied in Co. Leitrim, and to a lesser extent the Great Southern, allowed identification of changes in key socio-economic and physical characteristics over time that may have affected different conflicts. These are discussed qualitatively, rather than attempting to categorise them.</td>
<td>To some extent.</td>
</tr>
</tbody>
</table>
7.4.1 Topics of conflict

Table 7.4 compares the overall change observed in conflicts over different topics. No clear patterns relating the topic of conflict to outcomes of conflict were found. For each topic, there were both cases in which positive change was observed in conflict, and in which either no change or negative change occurred overall.

This strongly suggests that factors other than the topic of conflict influence whether conflict changes positively or not.
Table 7-4: Changes observed in conflicts involving different topics

<table>
<thead>
<tr>
<th>Conflict</th>
<th>GS1</th>
<th>GS2</th>
<th>GS3</th>
<th>GS4</th>
<th>GS5</th>
<th>GS6</th>
<th>GS7</th>
<th>GS8</th>
<th>L1</th>
<th>L2</th>
<th>L3</th>
<th>L4</th>
<th>L5</th>
<th>L6</th>
</tr>
</thead>
<tbody>
<tr>
<td>Overall change observed in conflict (✓, x, or -)</td>
<td>✓</td>
<td>✓</td>
<td>-</td>
<td>-</td>
<td>x</td>
<td>x</td>
<td>✓</td>
<td>-</td>
<td>x</td>
<td>x</td>
<td>✓</td>
<td>-</td>
<td>-</td>
<td>-</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Topic of conflict</th>
<th>A tick in the cells below indicates conflict involved this topic</th>
</tr>
</thead>
<tbody>
<tr>
<td>Environmental impacts</td>
<td>✓</td>
</tr>
<tr>
<td>Biophysical impacts  (not associated with environmental degradation)</td>
<td>✓</td>
</tr>
<tr>
<td>Socio-economic impacts</td>
<td>✓</td>
</tr>
<tr>
<td>Processing infrastructure</td>
<td>✓</td>
</tr>
<tr>
<td>Other infrastructure</td>
<td>GS6 = Siting mill</td>
</tr>
</tbody>
</table>
7.4.2 Parties involved in conflict

Table 7.5 compares the overall change observed in conflicts involving different combinations of stakeholder groups.

No relationship was observed between the type of group or combination of groups involved in conflict, and the ultimate outcome of that conflict.

However, a possible relationship between the number of groups involved in conflict can be seen. Anywhere from three to six groups were involved in the different conflicts. In all but two cases, either five or six distinct groups were involved in conflict, although in some cases one or two of these groups were not highly active participants.

The two conflicts with the fewest participants – conflict over recreational facilities in Co. Leitrim and conflict over neighbour impacts in the Great Southern – both changed positively. Of the rest of the conflicts, all of which had at least five groups participating, a variety of conflict outcomes occurred.

This suggests that it is possible that conflicts with relatively few different participants were more likely to be successfully addressed than others. The experience of interviewees was consistent with this, with those involved in neighbour issues describing the importance of establishing personal contact with other people involved in disputes – something that may be harder to achieve when more participants are involved.

However, having many different groups involved in conflict is clearly not a barrier to achieving positive change, and so while this may be one contributing factor, other factors are as, or more, important in determining outcomes of conflict.
Table 7-5: Changes observed in conflicts involving different actors

<table>
<thead>
<tr>
<th>Conflict</th>
<th>GS1</th>
<th>GS2</th>
<th>GS3</th>
<th>GS4</th>
<th>GS5</th>
<th>GS6</th>
<th>GS7</th>
<th>GS8</th>
<th>L1</th>
<th>L2</th>
<th>L3</th>
<th>L4</th>
<th>L5</th>
<th>L6</th>
</tr>
</thead>
<tbody>
<tr>
<td>Overall change observed in conflict (✓, x, or -)</td>
<td>✓</td>
<td>✓</td>
<td>-</td>
<td>-</td>
<td>x</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td>x</td>
<td>x</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td><strong>Actors involved in conflict</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Plantation growers</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
</tr>
<tr>
<td>Plantation processors</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Local government</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
</tr>
<tr>
<td>Farmers and farmer representatives</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
</tr>
<tr>
<td>Rural/regional residents other than farmers</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
</tr>
<tr>
<td>Environmental groups</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
</tr>
<tr>
<td>Government agencies other than local government</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
</tr>
</tbody>
</table>

Note: A large/bold ✓ below indicates prominent participation in the conflict; a small grey x indicates group was not a prominent participant in conflict.

GS1 = Establishment practices  GS6 = Siting mill  L3 = Environmental impact
GS2 = Neighbour conflicts     GS7 = Transport to port  L4 = Road infrastructure and safety
GS3 = Fire risk and management GS8 = Road infrastructure and safety  L5 = Recreation facilities
GS4 = Aerial spraying          L1 = Competition for agricultural land  L6 = Siting and operation of mill
GS5 = Whole-farm planting      L2 = Afforestation incentives

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7.4.3 Scale of conflict

Table 7.6 compared different measures of the scale at which conflict was expressed and acted on. When analysing the data presented in the table, it was sometimes difficult to assess the power of actors to influence processes at different scales. The influence of particular groups changed over time, and hence their ability to act on certain issues also varied. For this reason, Table 7.6 indicates some actions may occur at a range of scales.

The following patterns were observed:

- Conflicts occurring at local scales – in terms of both the scale at which perceived impacts occurred, and at which concerns were expressed - were more likely to change successfully than conflicts occurring at regional or state/national scales (four of seven local scale conflicts changed successfully compared to three of nine larger scale conflicts);

- Similarly, conflicts which could be acted on at a local scale were more likely to have changed successfully than those that required action at a larger scale; and

- Successful change in conflict only occurred when actors involved in conflict had the power to act at the scales required for successful change in conflict.

The latter point requires some explanation. Conflicts were categorised based on a subjective assessment of the actions required to achieve successful change in conflict – based either on evidence of the scale of action that had worked to achieve successful change, or an assessment of what would be required. In some cases, it was possible to identify that objectives of participants in conflict could be met by changes able to be undertaken by local plantation companies or government agencies. In others, only change to rules or markets at a national level could address the issues of the conflict – for example, conflict over levels of grants and premiums can only be addressed by changes at the EU scale.

Conflicts which changed negatively overall generally involved issues that could only be acted on at a large scale – the state, national or even international scale – and actors who lacked the power to take action at the scale required:
• In whole farm planting conflict in the Great Southern (GS4), all of the key parties involved in conflict - the plantation sector, farmers and government - were constrained by market pressures operating at national and international level, which created incentives to establish whole-farm plantations. However, none of these parties had the power to influence these national and international market settings;

• In conflict over mill siting (GS6), achieving change to the proposed mill required having considerable influence at a range of scales, up to the State Government which made some of the key decisions to approve the mill. Most of the actors involved lacked influence at this scale, although there were some who had limited influence at this scale;

• In conflict over environmental impacts (L3), actions generally needed to be taken at EU level to change regulations and conditions for afforestation in ways that addressed concerns over environmental impact, although the plantation sector also had the ability to take some of these actions at a regional scale. The ENGOs driving this conflict were, towards the end of the study period, clearly influencing events at the EU scale, but had not yet achieved their full goals; and

• In conflict over road infrastructure and safety in Co. Leitrim (L4) the main participants – the LCC – had power to act only at a limited scale, whereas funds needed to be obtained from national or EU sources. Similarly, in the Great Southern a similar mismatch occurred but roading issues had reached only an early stage of debate by the end of the period examined.

Conversely, conflicts which changed positively overall generally involved issues that could be acted on by one of more of the parties actively involved in the conflict.
### Table 7-6: Changes observed in conflicts occurring at different scales

<table>
<thead>
<tr>
<th>Conflict</th>
<th>GS1</th>
<th>GS2</th>
<th>GS3</th>
<th>GS4</th>
<th>GS5</th>
<th>GS6</th>
<th>GS7</th>
<th>GS8</th>
<th>L1</th>
<th>L2</th>
<th>L3</th>
<th>L4</th>
<th>L5</th>
<th>L6</th>
</tr>
</thead>
<tbody>
<tr>
<td>Overall change observed in conflict (✓, x, or -)</td>
<td>✓</td>
<td>✓</td>
<td>-</td>
<td>-</td>
<td>x</td>
<td>x</td>
<td>✓</td>
<td>✓</td>
<td>?</td>
<td>✓</td>
<td>x</td>
<td>x</td>
<td>✓</td>
<td>-</td>
</tr>
</tbody>
</table>

#### Scale of conflict

<table>
<thead>
<tr>
<th>Scale at which perceived impacts/issues occur (e.g. when an incident/impact occurs) (Local, Regional, State)</th>
<th>L</th>
<th>L</th>
<th>R</th>
<th>L</th>
<th>R</th>
<th>L</th>
<th>R</th>
<th>R</th>
<th>R</th>
<th>L/R/S</th>
<th>R/S</th>
<th>R</th>
<th>R</th>
<th>L/R</th>
</tr>
</thead>
<tbody>
<tr>
<td>Scale at which concerns expressed (L,R,S)</td>
<td>L</td>
<td>L</td>
<td>L/R</td>
<td>L/R/S</td>
<td>L/R</td>
<td>L/R</td>
<td>L/R</td>
<td>L/R</td>
<td>S</td>
<td>S</td>
<td>R/S</td>
<td>R</td>
<td>R</td>
<td>S</td>
</tr>
<tr>
<td>Scale at which actions desired can be implemented (e.g. L = local government or plantation sector; S = State/National/EU governments)</td>
<td>L/R</td>
<td>L</td>
<td>L/R</td>
<td>L/R/S</td>
<td>S</td>
<td>L/R/S</td>
<td>R</td>
<td>S</td>
<td>S</td>
<td>S</td>
<td>R/S</td>
<td>S</td>
<td>L/R/S</td>
<td>L/S</td>
</tr>
<tr>
<td>Scale at which key conflict participants have ability to act (L,R,S)</td>
<td>L/R/S</td>
<td>L/R</td>
<td>L/R</td>
<td>L/R</td>
<td>L/R</td>
<td>L/R</td>
<td>L/R</td>
<td>L/R</td>
<td>L/R</td>
<td>L/R</td>
<td>L/R</td>
<td>L/R</td>
<td>L/R</td>
<td>L/S</td>
</tr>
</tbody>
</table>

- GS1 = Establishment practices
- GS2 = Neighbour conflicts
- GS3 = Fire risk and management
- GS4 = Aerial spraying
- GS5 = Whole-farm planting
- GS6 = Siting mill
- GS7 = Transport to port
- GS8 = Road infrastructure and safety
- L1 = Competition for agricultural land
- L2 = Afforestation incentives
- L3 = Environmental impact
- L4 = Road infrastructure and safety
- L5 = Recreation facilities
- L6 = Siting and operation of mill

- The scale at which impacts/issues occur refers to the size of the region over which a specific impact may fall. If the impact/issue causing conflict may occur as a cumulative impact affecting a gradually larger area, it is indicated as potentially impacting at a range of scales;
- The scale at which conflict is expressed refers to the agencies, authorities and public to which the conflict was expressed. Was it only raised in local papers, and to local government? Or were complaints presented to state/national government or European Union agencies, and reported in national media?
- The scale at which issues would need to be acted upon is based on qualitative assessment of what would need to change if the desires of all actors in the conflict were to be met. In some cases this was easy to identify, as the actions had been implemented, while in others it was more difficult as successful change had not occurred in conflict;
- The scale at which key conflict participants have the ability to act is based on an assessment of the reasonable sphere of influence of different conflict participants. Have particular groups achieved local, regional or national change in the past (or in this conflict)? Do they have any formal authority at particular scales?
7.4.4 Intensity of conflict

The different conflicts studied reached very different intensities, as can be seen in Table 7.7. However, the intensity reached was not directly associated with particular outcomes in conflicts, except that conflicts of low intensity were more likely to remain relatively steady over time than other conflicts, where high intensity conflicts tended to either intensify or improve rather than remaining at a particular intensity for some time.

This suggests that low intensity conflicts may, in fact, be conflicts in which somewhat productive spaces are available for groups to work together and act on issues, and so these conflicts remain at a steady state for longer periods of time than those that reach higher intensity. This is certainly consistent with the analysis of these types of conflicts in Chapters 5 and 6.

Other than this, though, there was no consistent relationship between overall outcomes achieved in conflicts and the intensity of that conflict.
**Table 7-7: Changes observed in conflicts of different intensity**

<table>
<thead>
<tr>
<th>Conflict</th>
<th>GS1</th>
<th>GS2</th>
<th>GS3</th>
<th>GS4</th>
<th>GS5</th>
<th>GS6</th>
<th>GS7</th>
<th>GS8</th>
<th>L1</th>
<th>L2</th>
<th>L3</th>
<th>L4</th>
<th>L5</th>
<th>L6</th>
</tr>
</thead>
<tbody>
<tr>
<td>Overall change observed in conflict (✓, x, or -)</td>
<td>✓</td>
<td>✓</td>
<td>-</td>
<td>-</td>
<td>x</td>
<td>x</td>
<td>✓</td>
<td>-?</td>
<td>✓</td>
<td>-</td>
<td>x</td>
<td>x</td>
<td>✓</td>
<td>-</td>
</tr>
<tr>
<td>Intensity of conflict</td>
<td>M</td>
<td>L/M/H (varied)</td>
<td>L/M</td>
<td>H</td>
<td>M</td>
<td>M</td>
<td>L</td>
<td>L</td>
<td>H</td>
<td>M</td>
<td>M/H</td>
<td>H</td>
<td>M</td>
<td>L/M</td>
</tr>
</tbody>
</table>

Highest intensity reached at any point of conflict to end of period studied (Low, Medium, High)

GS1 = Establishment practices
GS2 = Neighbour conflicts
GS3 = Fire risk and management
GS4 = Aerial spraying
GS5 = Whole-farm planting
GS6 = Siting mill
GS7 = Transport to port
GS8 = Road infrastructure and safety
L1 = Competition for agricultural land
L2 = Afforestation incentives
L3 = Environmental impact
L4 = Road infrastructure and safety
L5 = Recreation facilities
L6 = Siting and operation of mill

The assessment of intensity of conflict in Table 7-7 is based on the definitions of intensity provided in Table 7.3.
7.4.5 Settings of conflict

What settings may potentially affect the course of conflict? The literature reviewed in Chapters 2 and 3 suggested that both socioeconomic and physical settings may influence the path of particular conflicts, but made few suggestions as to the specific types of socioeconomic and physical settings that might play a role.

When searching for an overarching framework from which to identify relevant settings, two key factors were identified:

- Differences in the socioeconomic/biophysical characteristics needed to be identified across conflicts – which in this case, meant across case study regions; and
- Changes in socioeconomic/biophysical characteristics needed to be identified within individual conflicts over time.

Due to limited resources, I only examined biophysical and socioeconomic characteristics that were identified by interview respondents or documentary sources as having potentially influenced conflict outcomes. These were relatively few, and not consistently related to change in conflict.

Differences in biophysical and socioeconomic settings across case study regions

There were surprisingly few differences between the two case study regions that potentially influenced conflict. Both had similar cultural emphases on the importance of rural culture and landscape. The only major difference identified was the different institutional settings in the agricultural sector. In Ireland, and the EU more generally, government intervention in the form of agricultural grants acts to direct the types of land uses occurring on rural land. In Australia, market pressures are the primary determinant of land use on privately owned agricultural land. This affected the types of responses that could be implemented to conflicts – in Ireland it was possible to redirect government grants, whereas this type of strategy was not possible in the Australian context.

Differences in biophysical characteristics did lead to development of different conflicts. In Co. Leitrim, concerns about trees shading houses were more important than in the
Great Southern, as in the latter property sizes were considerably larger than in Co. Leitrim and there was less potential for shading of residential houses by trees. Fire risk was lower in Co. Leitrim than the Great Southern, and so conflict did not develop around this specific issue. Finally, in the Great Southern the presence of considerable areas of native forest and other natural vegetation in National Parks and declared reserves provided opportunity for recreation, and there was no demand for plantations to be adapted to provide recreational services. In Co. Leitrim, plantations were effectively the only treed areas available for recreation, and recreation services were desired from plantations.

While biophysical characteristics of the two regions affected the topics of conflict that emerged over afforestation, no relationships were found between biophysical settings and the outcomes of conflicts.

Changes in biophysical and socioeconomic settings over time

No significant biophysical changes were identified over time that were likely to have affected outcomes of particular conflicts.

Considerable socioeconomic change occurred in both case study regions over the period studied. In both case study regions, changes to the agricultural sector led to increasing size of farms and decreasing numbers of farmers in rural areas over time. This change clearly impacted conflict over afforestation, which was viewed as contributing to this decline by some, and as a response to these changes by others.

In Co. Leitrim, three interview respondents suggested that improving socioeconomic conditions, particularly from the mid 1990s, were associated with a lessening of intensity of concerns over afforestation as Leitrim residents felt that employment opportunities were available outside the agricultural sector. However, it was not possible to explore this hypothesis further with the data gathered for this study, particularly as the change occurred mostly towards the end of the period studied.
7.5 Conjunctions of processes, actions and characteristics

The analysis above focussed on whether a single process, action or conflict characteristic was associated with particular conflict outcomes. However, when exploring the patterns observed, in almost all cases the process, action or characteristic being examined was associated with more than one type of change in conflict (positive, negative or no change). The discussion of each process, action and characteristic uncovered a number of explanations for these differing outcomes, most involving some type of conjunction of conditions in the conflict being examined.

While it is possible to identify from the results above that some processes/actions/characteristics were more commonly associated with positive change in conflict, none were always associated with positive change. It is therefore important to look for the particular conjunctions of conditions associated with positive change in different conflicts, to identify any recurring patterns.

Table 7.8 lists conflicts by whether they changed positively, did not change or changed negatively overall during the period studied, and compares the processes, actions and conflict characteristics associated with different types of change in conflict. Only those conflict characteristics and responses sometimes associated with successful change in conflict are included. Even where a conflict overall changed negatively, if implementation of a particular process or action was associated with a short-lived positive change, it is given a tick symbol to indicate some positive change occurred.

The evaluation of whether a condition was associated with successful change was based on the assessments provided in Chapters 5 and 6 of the chains of events leading to individual conflict outcomes. To be associated with successful change, a condition had to either precede or occur at the same time as that outcome, and to have been justifiably linked to the successful change.

If a particular process or response was not used, the relevant cell is black on the table. If the process or response was associated with no or negative change, it is shown as a horizontally striped cell. Cells with ticks indicate positive change associated with particular actions or responses.
Table 7-8: Conjunctions of conditions associated with successful change in conflict

<table>
<thead>
<tr>
<th>Conflict process, actions or characteristic</th>
<th>GS1</th>
<th>GS2</th>
<th>GS7</th>
<th>L1</th>
<th>L5</th>
<th>GS4</th>
<th>GS3</th>
<th>GS8</th>
<th>L2</th>
<th>L6</th>
<th>GS5</th>
<th>GS6</th>
<th>L3</th>
<th>L4</th>
</tr>
</thead>
<tbody>
<tr>
<td>Overall change observed in conflict (✓, x, or -)</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
</tr>
<tr>
<td>Process: Adversarial process</td>
<td>n/u</td>
<td>n/u</td>
<td>n/u</td>
<td>n/u</td>
<td>n/u</td>
<td>n/u</td>
<td>n/u</td>
<td>n/u</td>
<td>n/u</td>
<td>n/u</td>
<td>n/u</td>
<td>n/u</td>
<td>n/u</td>
<td>n/u</td>
</tr>
<tr>
<td>Process: Information dissemination</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
</tr>
<tr>
<td>Process: Disseminate scientific evidence</td>
<td>n/u</td>
<td>n/u</td>
<td>n/u</td>
<td>n/u</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
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</tr>
<tr>
<td>Process: One-off public meetings and forums</td>
<td>n/u</td>
<td>n/u</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
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<tr>
<td>Process: Increased opp’ty for communication</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
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<td>✓</td>
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<tr>
<td>Process: Committee of stakeholders</td>
<td>n/u</td>
<td>n/u</td>
<td>n/u</td>
<td>n/u</td>
<td>n/u</td>
<td>n/u</td>
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<td>n/u</td>
<td>n/u</td>
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<tr>
<td>Process: Increase participation in decision-making</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
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<tr>
<td>Process: Use third party to facilitate communication</td>
<td>n/u</td>
<td>n/u</td>
<td>n/u</td>
<td>n/u</td>
<td>✓</td>
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<tr>
<td>Process: Reframe problems</td>
<td>n/u</td>
<td>n/u</td>
<td>n/u</td>
<td>n/u</td>
<td>✓</td>
<td>✓</td>
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<td>✓</td>
<td>✓</td>
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<td>✓</td>
</tr>
<tr>
<td>Action: Reduce competition for land/resources</td>
<td>✓</td>
<td>✓</td>
<td>n/a</td>
<td>n/a</td>
<td>n/a</td>
<td>n/a</td>
<td>n/a</td>
<td>n/a</td>
<td>n/a</td>
<td>n/a</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
</tr>
<tr>
<td>Action: Obtain scientific evidence and act</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
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<td>✓</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
</tr>
<tr>
<td>Action: Change regulation of practices (voluntary)</td>
<td>✓</td>
<td>✓</td>
<td>n/a</td>
<td>n/a</td>
<td>n/a</td>
<td>n/a</td>
<td>n/a</td>
<td>n/a</td>
<td>n/a</td>
<td>n/a</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
</tr>
<tr>
<td>Action: Change regulation of practices (govt)</td>
<td>✓</td>
<td>✓</td>
<td>n/a</td>
<td>n/a</td>
<td>n/a</td>
<td>n/a</td>
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<td>n/a</td>
<td>n/a</td>
<td>n/a</td>
<td>✓</td>
<td>✓</td>
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<td>✓</td>
</tr>
<tr>
<td>Action: Conditions on approving afforestation</td>
<td>n/u</td>
<td>n/u</td>
<td>n/u</td>
<td>n/u</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
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<td>✓</td>
<td>✓</td>
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<tr>
<td>Action: Change incentives</td>
<td>n/a</td>
<td>n/a</td>
<td>n/a</td>
<td>n/a</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
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<td>✓</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
</tr>
<tr>
<td>Action: Est. smaller scale/more diverse plantations</td>
<td>n/a</td>
<td>n/a</td>
<td>n/a</td>
<td>n/a</td>
<td>n/a</td>
<td>n/a</td>
<td>n/a</td>
<td>n/a</td>
<td>n/a</td>
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<td>✓</td>
<td>✓</td>
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</tr>
<tr>
<td>Action: Change practices/take action</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
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<td>✓</td>
<td>✓</td>
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<td>✓</td>
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<tr>
<td>Action: Shift to farmers undertaking afforestation</td>
<td>n/a</td>
<td>n/a</td>
<td>n/a</td>
<td>n/a</td>
<td>✓</td>
<td>✓</td>
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<td>✓</td>
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<tr>
<td>Action: Slower rate of afforestation</td>
<td>n/a</td>
<td>n/a</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
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<tr>
<td>Characteristic: Topic of conflict</td>
<td>E</td>
<td>E/B</td>
<td>P/I</td>
<td>S</td>
<td>I</td>
<td>E</td>
<td>B</td>
<td>I</td>
<td>S</td>
<td>P</td>
<td>S</td>
<td>P</td>
<td>E</td>
<td>I</td>
</tr>
<tr>
<td>Characteristic: Actors involved in conflict (Few, Many)</td>
<td>M</td>
<td>F</td>
<td>M</td>
<td>M</td>
<td>M</td>
<td>M</td>
<td>M</td>
<td>M</td>
<td>M</td>
<td>M</td>
<td>M</td>
<td>M</td>
<td>M</td>
<td>F</td>
</tr>
<tr>
<td>Characteristic: Parties able to take action at appropriate scale? (Y/N) (both means some actions could be taken but others not)</td>
<td>Y</td>
<td>Y</td>
<td>Y</td>
<td>N</td>
<td>Y</td>
<td>Y/N</td>
<td>Y</td>
<td>N</td>
<td>Y/N</td>
<td>Y</td>
<td>N</td>
<td>Y/N</td>
<td>Y</td>
<td>N</td>
</tr>
<tr>
<td>Characteristic: Conflict intensity at highest point</td>
<td>M</td>
<td>L/M/H</td>
<td>L</td>
<td>H</td>
<td>M</td>
<td>H</td>
<td>L/M</td>
<td>L</td>
<td>M</td>
<td>M</td>
<td>M</td>
<td>M</td>
<td>M</td>
<td>M/H</td>
</tr>
</tbody>
</table>
For the five conflicts which overall changed successfully, the most common conjunction of conditions was a combination of (a) increasing opportunities for communication, (b) increasing participation in decision making, and (c) taking action to change how/where plantations were established and managed. This was the only common conjunction of conditions, and occurred in all but one conflict that changed successfully.

In the remaining conflict, public meetings were held but no formal processes were implemented for ongoing improvement in communication. There was, however, an action implemented which addressed the concerns of all groups.

This suggests that increasing opportunities for communication and/or participation in decision making may facilitate reaching a successful outcome, but is neither necessary nor sufficient for achieving successful change.

Examining cases in which conflict did not change overall positively supports this suggestion. In four of the conflicts in which no overall change in conflict was observed, increased opportunities for communication and/or participation in decision making occurred. In one of these, actions was also taken which was associated with limited positive change in the conflict. In the other three either no actions were implemented, or only limited actions which did not address the goals of all actors in conflicts.

In other cases, while conflict overall did not change positively, at particular stages of conflict the implementation of actions to address the content of conflict was successful despite being unaccompanied by implementation of more participatory communication or decision making processes.

The types of actions taken varied, but in all cases where conflict changed successfully, the actions taken, whether implemented via changes in regulation or changes in incentives – were associated with successful change, whereas in other conflicts this was not always the case.

The key to successfully changing conflict, then, is taking appropriate action to change how afforestation occurs. However, this clearly didn’t occur in some cases. Why was this the case?
The conflict theories reviewed in Chapter 2 would suggest that lack of appropriate action is likely to be a direct result of lack of adequate co-operative communication between groups.

In the case of conflicts which changed negatively overall during the period studied, some sort of increased opportunity for communication was implemented in three cases—but did not lead to positive change in conflict in two of these, and to only short-lived improvement in the third. Again, the lack was in implementation of appropriate actions to address conflict, and there was a common conjunction of (a) improved communication processes associated with no or negative change in conflict and (b) only limited action being implemented to address issues of conflict.

This clear conjunction leads to the question of why actions were not always taken that adequately addressed the issues of conflict, even where improved communication spaces were developed in which conflict could be expressed and acted upon.

The key explanation present in all these cases for lack of effectiveness of action taken, or lack of any action taken, was that either:

- No solution was identified that all groups agreed upon; or
- A solution was identified but could not be implemented because one or more groups did not have the resources to implement the action identified.

This is perhaps clearest when the case of whole-farm planting in the Great Southern (GS5) is compared to conflict over afforestation of agricultural land in Co. Leitrim (L1). In both conflicts, critics of whole-farm planting or large-scale afforestation by plantation agencies or companies called for a shift to smaller-scale, farm forestry style afforestation. In the Great Southern, the parties involved in conflict could not implement this change. The plantation sector could not shift to this form of afforestation as they found farmers preferring to lease or sell their whole property for afforestation, and because larger-scale plantations were more cost-efficient and hence the end product more competitive. The farming community did not want a regulatory solution forcing smaller scale afforestation as it would limit their ability to choose how they used their land. Farmers tended not to have the resources to independently invest in afforestation.
In Ireland, however, the plantation sector was not constrained by market forces, with grants driving afforestation. A shift to providing grants and premiums that were higher for farmers allowed more farmers to afforest land, and led to farm forestry involving a mix of enterprises on a single property. This shift was clearly possible only because of the availability, and ability to target, grants and premiums provided by the government.

The implications of the results presented in Chapters 5, 6 and 7 are discussed in Chapter 8.
8 Discussion and conclusions

8.1 Introduction

The goals of this thesis, as stated in Chapter 1, were to examine:

- What responses are associated with successful change in different types of afforestation conflict? and
- To what extent are current theories on responding to conflict applicable to conflict over afforestation?

Successfully achieving these goals required developing an appropriate methodology for examining conflict responses and, in particular, identifying appropriate measures of successful change in conflict.

This chapter examines the types of responses that were associated with successful change in conflicts over afforestation, and the applicability of current conflict response theories to the afforestation conflicts studied. Discussion of the latter suggests some implications for the development of general theory about responding to conflict. The advantages and limitations of the methods used in the study are then discussed.

8.2 Types of conflict response associated with successful conflict change

The types of conflict response associated with successful conflict change were examined in detail in Chapters 5, 6 and 7. Taken as a whole, the primary conclusions from the results of the study were that:

- Taking appropriate action was sufficient and necessary for successful change in conflict; and
- Implementing co-operative communication processes, while associated with more rapid identification and implementation of necessary actions in many cases, was neither sufficient nor necessary for achieving successful change in conflict.
Based on these two results, it is clear that an in-depth understanding of why conflicts change in particular ways requires analysis not just of the processes used to communicate about conflict, but of how the types of actions sufficient to address the substantive issues of conflict can be identified and implemented. This requires understanding the substantive, rather than only the procedural and relationship, aspects of conflict. While much literature examines the needs for improving procedural and relationship aspects of conflict, very little links these aspects to the substantive actions that are required in many conflicts for successful change to occur. The implications of these results are discussed further below, focusing on:

- The importance of actions versus communication, and the nature of the actions taken;
- Implications of the results for the roles of process and relationships; and
- Understanding the substantive issues of conflict.

8.2.1 The importance of actions versus communication

While, in most of the conflicts studied, improved communication between parties to conflict was associated with successful change in that conflict, in some cases the implementation of more co-operative communication was not associated with successful change. When this pattern was explored further, a clear relationship was found between successful change and the implementation of appropriate actions to address the substantive issues of conflict.

In the case studies examined, the implementation of appropriate actions to address substantive issues of conflict was always associated with successful change in conflict. In most cases, this was assisted by the implementation of improved communication between groups, which allowed appropriate actions to be more readily identified. However, successful change did not require this improved communication. Conversely, improving communication without taking appropriate action did not lead to successful change in conflict.

The term ‘appropriate action’ refers to actions which changed afforestation or plantation management practices in ways that satisfied the concerns of critics while also meeting
the needs of the plantation sector. Both parts of this definition are equally important, and can be difficult to evaluate when examining a particular action. Defining what actions would satisfy the concerns of critics can be difficult, as different critics of afforestation may have different and not necessarily consistent ideas about what actions satisfy their concerns. It is also difficult as the concerns held by critics may change over time, as may the types of actions that can address concerns. I evaluated whether concerns of critics had been met by (a) asking critics if actions had adequately addressed their concerns, and (b) comparing actions taken with public statements from critics about the actions desired or outcomes they wanted to achieve.

In some cases, the challenge of changing goals over time was addressed through the establishment of communication processes in which conflict participants could regularly renegotiate the actions to be taken, allowing the actions used to change over time. As is discussed further below, the establishment of co-operative communication spaces in which participants could discuss and act on conflict did facilitate the identification and implementation of appropriate action in many cases.

It is equally important to understand the ability that different parties involved in a conflict have to take particular types of action. Different individuals and groups face a wide range of social, economic and environmental constraints that define the types of actions they are able to take.

These constraints are defined through the perceptions of different groups. A constraint believed by one group to prevent the implementation of particular types of change may be perceived by others as a boundary which could be shifted if the first group was willing. It would be useful to explore in more detail how different groups define their constraints, and change their perceptions of them, in future studies. However, even though constraints may be inherently subjective, or difficult to define, it is nevertheless clear that actors often face constraints that are shaped by external forces beyond their direct control. For example, the presence of competing firms or land uses, of government regulations, of cultural and social norms, and/or of a range of other formal and informal institutions, all create boundaries delineating what actions particular groups will and will not – or can and cannot – take.
These results point to the importance of understanding and exploring when, why and how actions are taken to address conflict. The analysis in Chapter 8 pointed in particular to the importance of understanding the ability of different groups involved in a conflict to take the actions needed for successful change in conflict. In those conflicts where successful change did not occur, the types of actions needed were often clearly beyond the direct power of the specific groups and individuals involved in the conflict. By direct power, I am referring to whether those acting on the conflict and involved in communicating about it could directly implement the changes either being suggested as a solution to concerns forming part or all of the conflict, or which were eventually implemented. In many cases, the people who were directly involved in the conflict could not take action themselves, but instead had to lobby other groups – e.g., the State government in Western Australia, or the European Commission in Ireland – to take the actions that those involved in the conflict had identified as having the potential to successfully change conflict. In effect, they had to draw these external actors into, and convince them to act on, conflict. In most cases, this was associated with a clear dichotomy in the scale at which conflict was being expressed and discussed (often local or regional), and that at which actions identified as potentially addressing the substantive issues of conflict could be taken (often national or international).

This could be perhaps most clearly demonstrated by examining conflicts in both case study regions over road infrastructure. While all groups involved in the local/regional scale conflicts agreed on the need for increased funding to maintain and upgrade roads, all strongly believed they lacked the resources to provide this funding, and so they had to seek funds from external sources not directly involved in the conflict – e.g. the Federal government in the case of the Great Southern conflict, and the European Commission in the Co. Leitrim conflict.

A more complex case is that of the two conflicts involving some similar issues related to the social and economic impacts of afforestation: conflict over competition for agricultural land in Co. Leitrim, and conflict over whole-farm planting in the Great Southern.
Both these conflicts involved concern about the afforestation of agricultural land by plantation companies, and included criticisms of the lack of afforestation by farmers. In the Great Southern, however, the actors involved in conflict had limited ability to alter the pressures that had led to the predominance of whole-farm planting. The plantation sector was under pressure to produce profitable tree crops from which wood products could be sold on competitive global markets. The policies of the relevant Western Australia state government and the Australian federal government adhere strongly to the principles of economic rationalism, and there is also a strong belief amongst government and private landowners that the latter should have the freedom to choose the use to which they put their land. This philosophy is shared by many in the agricultural sector, with many farmers rejecting attempts by local government to encourage smaller scale agroforestry or farm forestry and discourage whole farm planting via regulation or policy. The economics of afforestation clearly favour large scale planting to maximise competitiveness in markets for commodities such as woodchips, and farmers often chose to sell or lease their whole property for afforestation, rather than a part of it. As a result, whole farm planting – predominantly undertaken by plantation companies, sometimes in sharefarming arrangements with farmers – continues. Neither the plantation companies, local government or critics of afforestation directly involved in the conflict could achieve a shift to the smaller scale plantings called for by critics, with the combination of factors described above creating strong imperatives which could only change if farmers were provided with greater incentives to afforest part of their property, or the pressure to achieve economies of scale was reduced.

In Ireland, however, the underlying philosophy of management of rural landscapes is quite different. There is a long standing philosophy of providing government assistance to farmers to maintain the various characteristics of rural landscapes that are considered social priorities. Consequently, it was possible for one actor involved in the conflict – the government – to achieve changes that satisfied the needs of all, by introducing a set of afforestation incentives that specifically encouraged afforestation by farmers. The agricultural sector in Leitrim is protected from exposure to the global market pressures that forced continuation of whole farm planting in the Great Southern, with the level and type of afforestation determined largely by the extent to which agricultural subsidies
from the EU are targeted to afforestation, rather than by shifts in markets for wood products.

The result of this key difference was that successful change was achieved in the conflict in Co. Leitrim, but not in the Great Southern. This was despite the institution of some processes encouraging more co-operative communication about whole-farm planting issues in the Great Southern.

The power relationships discussed above focus on whether actors involved in conflict have the ability to implement changes that some or all participants in the conflict believe have the potential to successfully change conflict. As discussed in Chapter 2, the conflict response literature tends to emphasise the importance of understanding the relative power of different groups involved in conflicts, and attempting to achieve some type of equalised or equitable power relationships. While understanding relative power held by different groups is clearly of high importance, the results of this study suggest it may be equally important to (a) analyse the constraints within which different individuals or groups can act on issues related to the conflict, and the implications of these boundaries for their ability to implement suggested conflict responses; and (b) realistically evaluate the extent to which any of the actors involved in a conflict have the ability to implement changes some or all believe are needed to successfully change the conflict. If none of the actors involved are able to take the actions that have potential to successfully change conflict, implementation of more co-operative communication processes is unlikely to result in noticeable improvement in the conflict.

Given that the implementation of appropriate actions is so important in achieving, and that inability to implement action is a key factor preventing, successful change in conflict, it is important to explore whether other factors related to actions taken affect whether these actions are successful, or not, in changing conflict. In particular, the hypotheses identified in Chapter 3 identified a variety of mechanisms by which actions could be implemented, with different theories variously recommending the use of self regulation, government regulation, incentives, policy changes or certification to achieve particular types of change.
However, the type of mechanism used to implement an action did not appear to influence subsequent change in conflict. In some cases, action was taken informally and was not even documented; in others, it resulted from person to person communication over afforestation on a single property; while in others it involved implementation of or changes to self regulation, government regulation or government incentives. While changes to government regulation were generally not associated with ongoing successful change in conflict, this could be explained by the nature of the action taken, which in most cases did not meet the needs or constraints of all actors involved in the conflict being examined. In the case of other mechanisms, there was no clear pattern—sometimes conflicts changed successfully when actions were implemented using these mechanisms; in other cases they did not.

However, there were relatively few examples of each of these mechanisms for implementing action. In the case of certification, it was not possible to evaluate whether implementation of FSC or other certification schemes had a noticeable impact on conflict as certification only occurred toward the end of the period studied. Further study is needed to examine what influence, if any, the mechanism by which an action is implemented has on conflict outcomes.

In Chapter 1, a wide range of topics of disagreement about afforestation were identified. The variety of types of conflict occurring over afforestation suggests that different responses may be needed to address these different types of conflict, yet the discussion above has focussed fairly broadly on the implementation of appropriate action as a response to all types of conflict.

In fact, the successful actions used, while sharing the common characteristic that the action taken had successfully addressed the substantive issues of conflict, differed considerably across different conflicts. For example, changes to establishment and management practices were implemented in some conflicts, while in others changes were made to the types of incentives provided to undertake afforestation.

The type of action sufficient and/or necessary to address conflict could only be determined based on an in-depth knowledge of the individual conflict, or of particular disputes within that conflict. However, in all cases, the success or otherwise of change
in conflict could be explained by examining whether the actors involved in conflict had the power to act on the substantive issues of conflict, emphasising the importance of understanding the constraints within which different individuals and groups can take action.

8.2.2 The roles of process and relationships
The diversity of the actions taken to achieve successful change in different conflicts does point to a need to develop ways of identifying appropriate actions that are likely to successfully change conflict. It is here that the importance of providing appropriate communication processes/spaces must be emphasised. While the results of this study indicate the current focus of conflict theorists on process are too narrow, this does not mean that the processes by which parties to conflict communicate about conflict are unimportant. In fact, in most cases where actions taken successfully changed conflict over afforestation, some type of co-operative communication process had been implemented.

The presence of these co-operative spaces, which provided opportunity for conflict participants to discuss disagreements and attempt to reach a shared understanding of conflict, clearly played an important role in identifying the actions needed to successfully change many conflicts. This role was consistent with that proposed in the majority of theories of co-operative response to conflict, with more productive communication associated with successful change in conflict (and generally also with substantive changes in afforestation practices).

Some processes clearly facilitated development of improved relations between actors in conflicts, while others did not; in general, those processes that encouraged face to face communication and some form of shared dialogue or decision-making were more likely to be associated with successful change in conflict than those that involved a third party making decisions without direct dialogue between groups. These types of processes provided space for improved relationships to develop between actors, for some trust to develop, and hence for positive change in conflict. There was a clear link between co-operative communication involving shared dialogue or decision-making, and improved relationships between conflict parties. However, improvement in relationships was often
subtle and partial, and it is important to note that disagreement often remained despite relationships improving in some respects such as the degree of trust conflict participants had in each other.

These results are consistent with most theories about responding to conflict, and confirm the benefits of encouraging and achieving more productive communication between groups, and the role of trust and respect in improving relationships.

That said, the communication spaces used in the conflicts studied often did not take the forms proposed in many conflict response theories. Current theories of conflict response tend to focus on the establishment of new processes focussed specifically on addressing issues of conflict. However, in many of the conflicts studied, communication took place within spaces that already existed in the case study region, such as meetings of local government, or utilised traditional communication mechanisms such as the establishment of committees or submission processes.

The spaces available for participants to discuss and act on conflict also included many which were not established for the purposes of trying to resolve or transform conflict. For example, in conflict over fire management, the processes used to communicate about disagreements were established for the purpose of developing fire management strategies, and did not have any specific goal of addressing conflict despite being used to express and act on disagreements.

These observations suggest a need for further examination of existing processes, spaces and institutions which provide opportunities for those involve in conflict to interact productively, rather than focussing solely on the establishment of new processes, spaces and institutions when recommending methods for responding to conflict.

Improved relationships between actors were clearly an important part of achieving successful change in some conflicts. However this observation does not answer the ‘structure versus agency’ question raised in Chapter 2. What was the factor that triggered successful change in a conflict – the provision of a space in which productive communication could lead to improved relationships? Or was it that particular individuals ensured they co-opted or created a positive space for interaction, with individual agency more important than the presence of a particular type of space/process.
in which parties to a conflict could interact? The results of this study cannot answer this question; the role of structure versus agency in influencing successful change in conflict should be studied further.

Another key question is whether factors outside the individual conflict triggered a shift to more co-operative communication or to improved relationships between actors. When identifying individual conflicts (Appendices 6 and 9), in several instances particular parties were identified as being involved in multiple conflicts over afforestation, although the mix of actors involved was different for each conflict. Did actors develop relationships (positive or negative) that crossed conflicts? This certainly appeared to be the case. However, in interviews, actors did not describe improved communication and relationships in one conflict as translating to improved communication and relationships in others. Quite different processes were used to try to address each conflict, and actors rarely discussed linkages between conflicts. This is partly an artefact of the way individual conflicts were defined, which was based on analysing the level of linkages between issues, and defining those that formed a natural group with few linkages to other groups of issues as a conflict (Appendices 6 and 9). That said, the lack of cross-over between conflicts where the same individuals were involved in multiple conflicts did appear to be linked to differences in the substantive issues of each conflict, as well as potentially to the availability of communication spaces to discuss issues in different conflicts.

8.2.3 Understanding the substantive issues of conflict

Understanding what works to successfully change conflict requires exploring the substantive issues of individual conflicts, as different actions are needed to successfully address these substantive in different conflicts.

Understanding substantive issues of conflict is complex, as it requires understanding the values and beliefs on which judgments of fairness and appropriateness of afforestation are based. In both the case study regions, perceptions of fairness for many people included a strongly held belief that farmers were the rightful managers of rural land, and that afforestation clashed with and permanently changed rural landscape and culture. This underlying belief was the source of concern about the implications of different
aspects of afforestation, and of calls for forms of afforestation that were less confronting to this set of beliefs. All the substantive topics of conflict could be linked to beliefs about which groups were perceived to have the right to, and be trusted to, manage rural land and/or direct how it was used.

The differences in worldviews and beliefs of participants in conflict, particularly over issues such as the construction of rural identity, or risk presented by particular practices, present considerable obstacles to achieving agreement on appropriate solutions to conflict. Theories of co-operative communication, e.g. reframing and problem solving theory, are based on the underlying belief that it is possible for groups to achieve a shared understanding of issues. However, the results of this study suggest this is not always the case – and also suggest that in some cases, it is possible to achieve successful change in conflict without achieving reframing of some of the conflicting beliefs and values underpinning conflict. This may be explained through an reinterpretation of reframing theory. Most theorists believe reframing works by ensuring participants achieve a shared understanding of the issues of conflict, and that this is underpinned by development of a shared worldview that then enables the development of creative solutions to conflict issues. However, the results of this study indicate that solutions can be found to conflict which meet the needs of different parties but do not involve those parties achieving a shared or even partially shared understanding of the conflict. In some cases, positive change occurred which all parties agreed had assisted in addressing unproductive aspects of conflict, but which had not been associated with those participants changing their original positions on the conflict, or improving their relationships with other parties to the conflict. Conflict, in other words, was reframed enough to meet different needs without necessarily changing people’s relationships or views of each other. That said, achieving improved communication and relationships in several cases clearly assisted the process of identifying the substantive changes needed to successfully address conflict.

The use of co-operative communication can help conflict participants identify actions consistent with their values and beliefs that are likely to achieve successful change in conflict. In the absence of finding ideal solutions such as these, improved
communication can still assist in identifying actions that can be taken to successfully change conflict even if underlying differences in values and beliefs cannot be resolved.

Further work is needed to examine more explicitly the extent to which it is necessary to achieve a shared worldview in order to successfully change conflict in the long term. Chapter 2 identified a number of criticisms of the use of reframing approaches, including concerns that this approach may result in a loss of diversity of perspectives. Is it possible to solve a conflict problem without achieving a shared worldview? To what extent are shared values and beliefs required to successfully address a particular conflict? The results of this study suggest that it may only be necessary to achieve a partial sharing of views, rather than the comprehensive reshaping of values suggested by some advocates of reframing approaches.

8.3 Implications of results for conflict response theory

There is no unified body of conflict theory on how best to respond to conflict. There does exist, however, a considerable body of practical and applied approaches to responding to conflict, almost all of which focus on improving the processes used to communicate about conflict. This response is clearly based on a functional interpretation of conflict, in which conflict is viewed as a result not of ‘right’ and ‘wrong’, but of differing legitimate worldviews and values.

The conflict response literature has also tended to focus on large-scale, ‘classic’ conflicts involving actions such as marches, petitions, blockades and violence, and on designing responses to conflict that do not utilise existing institutions – for example, setting up specific negotiation or conflict reframing processes.

Many aspects of current theories on responding to conflict have clear applicability to the afforestation conflicts studied. The most obvious is the finding that implementation of more co-operative communication was associated with successful change in conflict in many cases, which is consistent with most theories on responding to conflict.

However, the results of the study suggest that this is the extent of the applicability of existing theories to the conflicts studied. While most conflict response theory examines how to respond to high intensity, large scale conflicts, the afforestation conflicts studied
were mostly relatively small scale and low intensity. Conflict was expressed in local newspapers, in concerns raised at local government meetings or farmer meetings, or through complaints made to plantation managers, and less commonly through actions such as petitions, marches or violence that most people associate with conflict. These conflicts have large impacts on the lives of those living and working in rural communities, yet do not take the classic forms most people would recognise as ‘conflict’.

Resources were not available in many of the conflicts studied to implement the types of specially designed processes for responding to conflict often recommended by conflict response theorists. Instead, existing institutions and processes were commonly co-opted to act as spaces for expressing and acting on conflict.

Current theories on conflict response have resulted in significant progress in addressing conflict in a way that provides the best possible outcomes for all parties. However, the focus on developing processes that can be utilised in high intensity conflicts has led to the success or otherwise of conflict outcomes being explained solely as a function of these processes. Other factors, such as the actions taken to respond to concerns, or the relationship between type of conflict and the success of different response processes, have remained largely unexamined.

The results of this study emphasise the importance of examining all spaces in which conflict is expressed and acted on, rather than only those processes specifically implemented to try to reduce high intensity conflicts. How can local governments, local agencies and local communities use existing spaces to better address conflict? Can existing institutions provide the space needed to have productive dialogue about issues of disagreement? The case studies examined in this thesis indicate there is considerable opportunity to utilise existing spaces rather than creating entirely new processes for addressed conflict, although within limits.

As discussed in Chapter 2, most theories of conflict response advocate implementing co-operative conflict responses – processes by which different groups can communicate and achieve shared understandings of problems, and hence shared solutions to these problems. Adversarial processes, in which an independent third party is called on to
judge which party is right and which wrong, have been argued to intensify, rather than productively change, conflict.

The results of this study were consistent with these findings up to a point. Co-operative responses were much more likely to be associated with successful change in conflict than adversarial responses. However, other processes which are ‘part co-operative’ and ‘part adversarial’ were also used. These included processes used traditionally by governments to decide whether to approve activities such as building of new infrastructure, as well as public meetings and forums. A mix of outcomes were achieved when these processes were used.

Importantly, the use of co-operative responses did not always work to achieve a successful outcome to conflict. In addition, conflict sometimes changed successfully without a co-operative process being implemented.

While co-operative processes for responding to conflict led to a higher likelihood that appropriate solutions would be found, in some cases actions were taken which successfully changed conflict without any cooperative response process being implemented.

The understanding of conflict as a functional process has led to a focus on providing ‘functional spaces’ within which conflicts can be discussed that has unintentionally reduced emphasis on the need to achieve change via the discussions held in these functional spaces. This has been associated with a lack of analysis and understanding of the real constraints and boundaries facing conflict participants when they are asked to implement change as a result of a conflict response process.

Failure to reach a solution in the co-operative processes examined as part of this study was often the result of conflict participants lacking power to act on the factors that were the source of conflict. In particular, plantation companies in the Great Southern were constrained in the extent to which they could change the nature of the plantations being established. To remain profitable, they needed to achieve economies of scale and other cost efficiencies that would allow the wood produced to be sold competitively on international markets. As a result, a shift to smaller scale, more diverse plantings was not compatible with business survival. In Ireland, in contrast, with afforestation largely
funded through government grants and premiums made available to the private sector, and without the same pressures to reduce costs to be competitive on world markets, a shift to small scale, diverse planting was achieved which has led to some reduction in conflict.

In addition, conflicts over relatively technical problems for which evidence was readily available, and conflicts occurring at small scales and/or with few participants, were more likely to change successfully than larger scale, more complex conflicts over issues that were more based on values, interests and needs than debate over the outcomes of a particular practice.

Conflicts involving debates over who should have the right to use agricultural land were less likely to be successfully addressed than conflicts over simpler issues related to the impacts of particular practices. However, even where all parties could agree on what actions should be undertaken, conflict remained highly unproductive in some cases where mechanisms by which these actions could be implemented could not be found. Conflict over road maintenance and upgrading was a key case in both case study regions. All parties agreed that considerable upgrading and maintenance of roads was needed but, at the regional scale, no parties had the resources to fund this work. Only when funding was successfully sourced at a national (or EU) level was there successful change in these conflicts. Participants in this type of conflict relied on convincing ‘external’ parties to enact changes that could help address conflict, as they did not have the resources required to take the actions needed.

The results of the case studies clearly show that focussing on conflict response processes alone cannot explain why levels of conflict over afforestation have increased or decreased. Indeed, focussing on this alone would have provided a very confusing picture in which conflict levels did not consistently change when similar communication processes were implemented in different situations. However, when the responses are examined in the context of the ability conflict participants have to act on conflict – the boundaries and constraints imposed on them by, for example, international markets, or government regulations – and on the complexity and scale of action required to successfully address conflict, it becomes possible to achieve a better understanding of
the outcomes of conflict response processes. The constraints facing the plantation sector in the Great Southern region are very different to those facing the plantation sector in County Leitrim, and their ability to respond to similar topics of conflict has as a result been very different.

Examining external factors also allows for a more realistic analysis of the effects of conflict responses – and avoids over-explaining changes in the level of conflict based solely on the processes used to respond to conflict. Demographic change in County Leitrim has probably contributed at least in part to a lessening of conflict, as has the rise of the ‘Celtic tiger’, the rapidly growing Irish economy providing alternative employment opportunities in even the poorest of Irish counties.

Improving communication between groups, whether through informal discussion or formal regulations requiring consultation, can facilitate successful change in conflict. But the achievement of successful change is dependent on the ability to reach agreement on and implementing the changes needed to address underlying sources or causes of conflict. If it is not possible to take the actions needed to address sources of conflict, then implementing mediation/negotiation or other response processes may actually inflame conflict, instead of improve it, by leaving participants feeling they have been patronised, ignored, or otherwise had their time and energy wasted on a process that, in the end, could not achieve what it claimed it would.

The results clearly point to a need to build a theory of conflict response that incorporates analysis of the power of conflict participants to effect change. What constraints do different parties to a conflict operate under? What actions can they realistically take to respond to concerns raised by other parties? What would be the consequences of undertaking actions determined necessary through a conflict response process?

This could be achieved by explicitly incorporating a modified radical conflict perspective into theories of conflict response, which are currently based on functional understandings of conflict. As discussed in Chapter 2, radical conflict perspectives – detailed most famously by Marx, and encompassing a broad body of theory - emphasise the role of social and economic structures in producing conflict, and therefore acknowledge the constraints faced by those involved in conflict as a result of these
social and economic structures (see Bernard 1983 for detailed discussion of this body of theory). However, while commonly utilised as a way of understanding the nature of conflict, this literature has rarely been drawn on to shape theories about responding to conflict. Instead, functional understandings of conflict, in which theorists such as Simmel (1955) and Coser (1956) proposed that the positive functions of conflict should be actively encouraged, have underpinned much of the conflict response literature (as discussed in Chapter 2). Functional understandings of conflict emphasise that conflict can be used to achieve positive change, but fail to realistically assess the constraints faced by actors in small scale or regional conflicts which are influenced by social and economic forces beyond the control of the conflict participants.

Where participants are highly constrained, conflict should be responded to not by asking participants to negotiate amongst themselves, but by identifying the underlying mechanisms driving conflict, assisting participants to understand these, and seeking creative approaches to addressing them. This may allow participants to reduce conflict amongst themselves, and direct their energy and resources to underlying issues that are driving conflict. This entails understanding conflict as being at least partially a function of social and economic forces that are operating at larger scales than the conflict is expressed at, consistent with the interpretations of conflict provided by radical conflict theorists. It also allows for conflict to be understand as a functional process for human societies, but introduces more realism into analysis of how change in conflict may be achieved.

This represents an approach to ‘reframing’ conflict which looks outside the groups directly participating in conflict to critically analyse the external agencies that are contributing to that conflict. It is somewhat consistent with the theories of conflict transformation that have begun to emerge in recent years, discussed in Chapter 2 (e.g. Burton 1990, Dukes 1996).

As well as being willing to acknowledge constraints, and to examine the external forces shaping conflict, theories of conflict response need to focus on instituting processes that provide a space in which the substantive issues of conflict can be addressed alongside the procedural and relationship issues of conflict. By explicitly analysing procedural,
relationship and substantive issues, as suggested by Walker and Daniels (1997) and Hellström (2001), more effective processes can be developed which facilitate the implementation of the actions that are required for successful change in conflict.

Achieving these changes requires that time be invested in developing a shared understanding of the power of different conflict participants – but not simply the relative power between parties, which has been a common focus of conflict literature. Just as important as understanding relative power between conflict participants is understanding the ability of each party to achieve or implement changes that affect the substantive aspects of a conflict. A starting point for any conflict response should be the analysis of these constraints, which can then be used as a basis for identifying actions that can be taken to respond to conflict.

8.4 Reflections on methodology

The methodological approach used in this study has some clear advantages and limitations, related to the number of cases of conflict examined, the difficulty of defining the boundaries of individual conflicts, and the criteria used to evaluate success.

8.4.1 The ‘medium-N’ approach

This study used a ‘medium-N’ approach. The number of cases compared was higher than in the traditional qualitative comparative study, but fewer than in most quantitative comparative studies.

The goal of the medium-N approach was to incorporate in-depth qualitative analysis with a reasonable degree of generalisability of results resulting from the examination of a broad range of cases, following the approach advocated by authors such as Ragin (1987) and Mahoney and Rueschmeyer (2003).

However, using this approach requires some trade-offs, with loss of some of the advantageous elements of both the small- and large-N approaches. In particular, it was not possible to explore each case in as much depth as would occur in a traditional qualitative study examining a smaller number of cases. As a result, some important nuances and understandings of individual events were most likely lost, and it is important to recognise and acknowledge this limitation.
In a small number of case studies, I relied heavily on media reports as a source of data, with only one or two interviewees able to comment on particular conflicts (as discussed in the results chapters). Ideally, a wider range of participants in each conflict would have been interviewed and a greater range of documentary evidence gathered in these cases. However, this lack of depth in terms of data gathering was countered by identifying and comparing the views of conflict participants who held different perspectives, and by asking interviewees to evaluate the accuracy of the media reports and other documentation relied on. This enabled gaps in data and biases affecting reporting of events to be identified, although not always overcome. The greatest limitation of this approach is that there is a possibility some key events were not identified in conflicts because they were not reported on publicly, and the people interviewed for the study were not aware of them.

However, this trade-off of depth for quantity of cases did enable comparison across a wide number of cases. The value of this approach can be clearly seen in the results of the study. If only one or two cases of conflict had been examined, it would not have been possible to identify that, while implementing improved communication processes assists achieving successful change in conflict, it is neither sufficient or necessary for achieving successful change; nor that taking appropriate action to address conflict was more important than establishing improved communication processes. Identifying these results required examining multiple cases of conflict involving a range of combinations of communication processes and actions.

From a quantitative perspective, the study is limited in that statistical inference was not possible with the small number of cases examined. However, this was compensated for by the ability to qualitatively examine why particular outcomes occurred in different conflicts, and the results of this study provide a useful basis for identifying conflict variables that could be studied in future large-\(N\) explorations of conflicts.

The qualitative approach used was in fact essential to analysing conflict, as the criteria used to make value judgments about whether and how conflict had changed could be explicitly described. Any study examining how to respond to conflict involves judgments on what is a ‘good’ or ‘bad’ conflict. These judgments shape the entire
analysis. Had I characterised successful change in conflict as involving a cessation of public reports of conflict, then my evaluation of how the fourteen conflicts studied had changed would have differed considerably from the evaluation provided in Chapters 5, 6 and 7, and this would have led to a different set of conclusions about the factors associated with successful change in conflict. This is discussed further below.

8.4.2 Defining individual conflicts

The definition of the boundaries of individual conflicts was a challenging part of the study. While some disputes were easily distinguished from others – for example, the dispute over establishment of the Masonite mill in Co. Leitrim – others overlapped considerably. In particular, while most topics involved relatively distinct topics and processes, the same actors were generally involved in multiple conflicts.

What are the implications of identifying individual conflicts which are clearly related to each other? If conflicts had been defined more broadly, then it would not have been possible to identify whether conflict changed successfully as a result of implementation of particular actions. However, in some cases, identifying conflicts at a smaller scale would have assisted in evaluating the success of particular responses. In particular, examination of individual neighbour disputes, and more specific instances of disputes over fire management (GS) and environmental issues (Leitrim) would most likely have provided a more nuanced understanding of the relationship between improving communication processes and implementing ‘appropriate’ actions to address issues.

I used multiple criteria to identify individual conflicts (described in Appendices 6 and 9), including the topics over which disagreement occurred, the actors involved, the type of afforestation involved and different discourses about afforestation. A key gap in this analysis was the examination of the spaces in which different actors acted on conflict – what processes were used to discuss and act on conflict? What were the goals of these processes, and what issues were they designed to act on? Given the focus of the study on identifying whether conflict changed successfully as a result of use of particular processes or actions (as well as the different characteristics of conflict), it may have been more appropriate to define the boundaries of conflict based on the goals of the
responses implemented, and the topics of conflict these responses were intended to address.

In addition, I did not ask interviewees to self-define the conflicts they were aware of and the relationships between conflicts, although interviewees were asked more generically to identify whether and what types of conflicts had occurred over afforestation. Participants’ self-definition of conflicts, however, clearly affects how they respond to conflict, and is an important area that should be explored in future studies. In particular, the ways different perceptions and definitions of the boundaries of conflict shape conflict processes should be explored further.

While different conflicts were clearly related to each other – particularly as the same actors often participated in multiple conflicts – the influence different conflicts had on each other was not always clear. In interviews, participants often did not conceptualise the disputes or disagreements they had observed or participated in as ‘conflict’. This suggests that participants in conflict did not analyse different disagreements over afforestation separately, making it difficult to identify how experiences in relation to one issue influenced how people participated in other issues. Further exploration of the way participants perceive different issues and the relationships between them is needed to better understand how events in one conflict influence events in other conflicts.

8.4.3 Identifying whether conflicts changed successfully

The analysis presented in Chapters 5, 6 and 7 relied on identifying whether conflicts had or had not changed successfully at different points in time. It is therefore important to reflect on the approach used to assess change in conflict.

The use of five different criteria to evaluate change in conflict highlighted that conflicts sometimes change successfully in some dimensions but not others. For example, in several conflicts relationships did not noticeably improve between the parties involved in conflict but actions were taken to address substantive issues, or media coverage of conflict fell substantially.

While it was important to highlight these differences, they created challenges for subsequent comparative analysis, in which conflicts needed to be categorised as
changing successfully or otherwise overall, and the complexity provided by the five different measures effectively removed. In other words, an overarching definition of ‘success’ was still required. The definition I used was simple: if all participants in conflict agreed there had been positive change in conflict, this was defined as evidence of successful change.

However, even this definition presented some problems. Conflicts sometimes changed successfully for only short periods of time, before intensifying again. In other cases, a conflict changed only partly successfully – for example, in neighbour conflicts in the Great Southern, some disputes changed successfully while others did not.

This raised some challenging questions. If some but not all members of a particular stakeholder group are satisfied, does this represent successful change in conflict? If some disputes are successfully addressed but others are not, should the overall conflict be classified as changing successfully?

I was able to overcome these challenges primarily by using qualitative evaluation to specify the extent of successful change when comparing change across different conflicts. However, the identification of criteria for evaluating change in conflict is an area which could be usefully explored in more detail in future studies.

8.4.4 The choice to study responses to conflict

The study focussed on examining the ways individuals and groups had responded to conflict, and whether these responses led to successful change in conflict.

This approach had the potential to limit exploration of the role of agency in influencing the course of conflict. In several conflicts, the influence of a particular individual or group in changing the path of conflict was clearly identified by interviewees. In all these cases, this role was described in the results chapters. Whenever an individual or group was highly influential in changing the path of conflict, or triggering change, this was associated with change in the structural aspects of conflict, such as the processes actors used to interact over conflict. For example, in Ireland, the IFA clearly influenced a shift to more cooperative forms of communication. This highlights once again the interrelated nature of structure and agency, and that exploration of the role of structure, as was focussed on in this thesis, necessarily involves exploration of agency, and vice versa.
The methodology focussed on the structural aspects of conflict, via examining the different responses used to act on conflict. The potential for this to obscure the influence of factors such as the relationship between people involved in conflict was addressed by ensuring that the criteria used to evaluate change in conflict incorporated measures of changes in relationships, as well as structural measures. The construction of narrative histories of each conflict also ensured that the influence of particular individuals and groups on the path of conflicts could be clearly highlighted.

However, the analysis then focussed on whether conflict changed successfully, and what types of processes and actions occurred in association with successful change; this approach may obscure the importance of individual agency in triggering some of these successful changes. Does implementing the right action achieve successful change no matter who is responsible for implementing the action? Or does the implementation of action that successfully changes conflict relate to the motivation and influence of particular individuals who see and act on the possibility of achieving change in the social structures within which conflict is occurring? As stated in Section 8.2.2, further study is needed of the role of structure versus agency in achieving successful change in conflict.

8.5 Conclusions

The results of the study clearly demonstrate a need for conflict theorists to better address the substantive, as well as the procedural and relationship, aspects of conflict. Afforestation conflicts changed successfully when appropriate action was taken to address substantive issues of conflict. Appropriate action included changing the way afforestation was undertaken and plantations managed, whether through policy, regulation, or other mechanisms. Implementation of improved communication processes facilitated reaching implementation of these actions, but was not sufficient to achieve successful change in conflict. Other responses to conflict, such as ignoring conflict or disseminating information, were rarely associated with successful change in conflict.

The importance of taking action has implications for the design of the conflict processes on which many theories of conflict response focus. Improved communication will succeed only where it is accompanied by the ability to take the actions required to successfully change conflict. The actors involved in a conflict process must have the
ability to either take action themselves, or to achieve change outside the group. When implementing any conflict response, it is essential to realistically evaluate the capacity of different actors to implement particular types of action, and the constraints faced by different groups. This requires those involved to ensure they develop a shared understanding of the actions that may be needed to change conflict, and an understanding of the capacity of different groups to implement these actions.

Current conflict response theories were applicable only to a limited extent to the afforestation conflicts studied. The specific communication processes designed by different theorists were not used in many conflicts, with existing communication spaces instead co-opted and used to express and act on conflict. While communication processes were important, the ability to take action on substantive issues was consistently associated with successful change in conflict, while institution of co-operative communication was not.

The results of the study suggest a need to incorporate more radical conflict perspectives into theories of conflict response. This would encourage a more realistic analysis of the constraints faced by conflict participants, and of the potential for external social and economic forces to influence the path of conflict, than the functionalist understandings of conflict on which much conflict response theory is currently based. Combining both functional and radical interpretations of conflict can improve understanding of when and why co-operative communication processes can be used to achieve successful change in conflict, and assist those involved in conflict to develop a shared understanding of the actions they can implement to address the substantive issues of conflict.
9 References

The list of references below is presented in three parts:

- General references to conflict, afforestation and methodology (Chapters 1-4, 8 and Appendix 1);
- References cited as part of presenting results for the Great Southern case study (Chapter 5, Appendices 5 and 6); and
- References cited as part of presenting results for the Co. Leitrim case study (Chapter 6, Appendices 8 and 9).

The latter two are given separately as they include many references to specific documentation of events, e.g., media releases and government reports, that provide confirmation of the date/content of specific events.

In addition, a full list of all articles accessed in the *Albany Advertiser* and *Leitrim Observer* are provided in Appendices 7 and 10. The *Advertiser* and *Observer* articles specifically referred to in the body of the thesis are not listed in the references section in addition to Appendices 7 and 10, as they can be readily identified from the date and page number given in the text, and the Appendices can be used to identify the title or author of the article if/as needed.

In the case of some references to media releases or announcements made by interest groups on websites (predominantly for references cited as part of the results of the case studies), the URL cited in the reference may no longer exist due to rapid change in some websites. In all cases, I have filed hard copies of website references which can be provided on request if the page referred to is no longer available online.

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9.2 References – Great Southern case study

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9.3 References – Co. Leitrim case study

The list of references below includes all references cited in the results of the Co. Leitrim case study (Chapter 6) and related appendices (Appendices 8 and 9) other than articles from the *Leitrim Observer*, a full list of which is provided in Appendix 10.

Dail and Seanad debates are given a single reference below, with the website for the online debates provided. The date and page number of individual debates referred to in the text can be entered into this database to provide the full text of the relevant debate.


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