FOREST POLICY IN NORTHEAST BRITISH COLUMBIA FROM THE 1990S TO THE EARLY 2000S: COMPARING APPROACHES TO EXPLAINING POLICY CHANGE

by

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Abstract

In the late 1980s and early 1990s, with the increasing concern about protecting environmental values in forest across Canada and in other industrialized nations, many jurisdictions enacted new laws. Much of the new forest legislation was done through the so-called "command and control" approach to strengthen the regulation of forest practices and planning. Although the new regulatory frameworks were successful in forcing private firms and governments to pay greater attention to environmental concerns, they had also raised concerns about regulatory efficiency and cost effectiveness and prompted demands to reduce regulatory burdens and the costs of production. In response, the Government of British Columbia enacted a new regulatory framework that shifted away from detailed prescriptions and process-based approaches to those that are more based on "results" or "performance." To examine factors explaining such policy change, this dissertation analyzes two forest policy decisions in British Columbia - the revisions to the Forest Practices Code authorizing results-based pilot projects and the Fort St. John Pilot Project in the early 2000s – against two distinct theoretical frameworks. The analysis confirms the utility of the two theoretical frameworks - the Policy Regime Framework and the Advocacy Coalition Framework - in explaining policy change. The findings of this research also reveal the limitations of each of the two theoretical lenses, and suggest that ideas exert an independent causal influence on policies when uncertainty is high, information is incomplete, and the policy goal is shared by policy actors. As a result, a new synthesis of the two theories is presented.

Table of Contents

Abstract ii
Table of Contents iii
Lists of Tables viii
List of Figures ix
Acknowledgements x

Chapter One Introduction 1
1.1 New Regulatory Framework 1
1.2 Forest Policy in BC in the 1990s and the Early 2000s 2
1.3 Two Theoretical Frameworks for Explaining Policy Change 3
1.4 About This Study 4
1.5 Outline of the Chapters 5
Chapter Two Theoretical Framework and Research Design 6
2.1 Introduction 6
2.2 Research Questions 6
2.3 An Overview of the Theories of Policy Change 7
2.3.1 Problems with the Conventional Rational Choice Theory – The Role of Social Norms, Institutional Structure, and Information in Policy Change 7
2.3.2 Policy Image, Institutions, and Actors in Agenda Setting 9
2.3.3 Power in Policy Change 9
2.3.4 Actors' Strategies in Policy Change 10
2.3.5 External Shocks in Policy Change 14
2.3.6 Public Opinion in Policy Change 14
2.3.7 Learning in Policy Change 15
2.4 The Guiding Theoretical Frameworks 17
2.4.1 The Policy Regime Framework (the PRF) 17
2.4.2 The Advocacy Coalition Framework (the ACF) 20
2.5 Distinguishing the Advocacy Coalition Framework from the Policy Regime Framework 23
2.6 Research Hypotheses 25
2.6.1 Hypothesis Based on the Policy Regime Framework 25
2.6.2 Hypotheses Based on the Advocacy Coalition Framework 26
2.7 Multiple-case Studies as a Research Strategy 27
2.8 Research Variables 28
2.8.1 Independent Variables 28

2.8.2 Dependent Variables 29
2.9 Data Collection 29
2.9.1 Documentation as a Source of Evidence 29
2.9.2 Interviews as a Source of Information 30
2.10 Data Analysis 36
Chapter Three BC Forest Policy in the 1990s 37
3.1 Forest Policy in the Harcourt Era 38
3.1.1 The Timber Supply Review and Land Use Planning 38
3.1.2 The Forest Practices Code of British Columbia Act (the Code) 40
3.1.3 Forest Renewal BC (FRBC) and Adaptive Management 41
3.1.4 The 1995 FSSC Task Force Report 42
3.2 Forest Policy in the Clark Era 42
3.2.1 Forest Industry's Economic Losses and the KPMG Study 43
3.2.2 The Concept of Professional Reliance and Professional Accountability 44
3.2.3 The Jobs and Timber Accord, Operational Planning Review, and Streamlining the Code 45
3.2.4 Enhanced Forest Management Pilot Projects (EFMPPs) and Innovative Forest Practices Agreements (IFPAs) 47
3.2.5 Stumpage Rate Adjustments 49
3.2.6 Forest Action Plan 50
3.2.7 Cost Driver Initiative 51
3.2.8 Landscape Level Wildlife Protection 51
3.2.9 Forest Policy Review 52
3.2.10 Premier's Cariboo Economic Summit 52
3.2.11 The Legislation of Part 10.1 53
3.3 Summary 54
Chapter Four The Results-Based Code Pilot Project Policy 56
4.1 Policy Process 56
4.1.1 Agenda Setting 57
4.1.2 Policy Formulation 59
4.1.3 Decision Making 60
4.1.4 Implementation 62
4.2 The Part 10.1 Pilot Projects 63
4.2.1 The Stillwater Pilot Project 63
4.2.2 The Fort St. John Pilot Project 63
4.2.3 The Cariboo Licences Pilot Project 64
4.2.4 The Cariboo Woodlot Pilot Project 64

4.2.5 The Riverside (TFL 49) Pilot Project 64
4.2.6 The Bulkley Pilot Project 65
4.2.7 Other Pilot Proposals 66
4.3 Policy Content of Part 10.1 66
4.3.1 Public Involvement 67
4.3.2 A Results-Based and Professional-Reliance Framework 68
4.3.3 Exemption from Parts of the Code's Provisions 69
4.3.4 Strategic and Landscape Level Planning 69
4.3.5 Site Level Planning 70
4.3.6 Forest Practices 70
4.4 Policy Change 70
4.4.1 Policy Goals 70
4.4.2 Policy Instruments 71
4.4.3 Instrument Settings 72
4.5 Concerns of Environment Groups 72
4.6 Conclusion 74
Chapter Five Forest Policy in Northeast BC in the 1990s and the early 2000s 82
5.1 Northeast BC 82
5.2 Forest Industry in Northeast BC 83
5.3 Forest Management in Northeast BC 85
5.4 Land Use Policy in Northeast BC 86
5.5 The Muskwa-Kechika Management Area 88
5.6 Timber Supply in Northeast BC 89
5.7 DFAM Groups 96
5.8 TFL 48 96
5.9 Forest Policy in Northeast BC and its Challenges 97
Chapter Six The Fort St. John Pilot Project 98
6.1 Resource Dilemmas in the Fort St. John Timber Supply Area (TSA) 98
6.2 The Fort St. John Pilot Project 99
6.2.1 The Fort St. John Pilot Project Proposal 99
6.2.2 The Participants 99
6.2.3 The Public Advisory Groups (PAG) 100
6.2.4 The Scientific Technical Advisory Committee (STAC) 101
6.2.5 The Approval of the Pilot Project and its Regulation 101
6.2.6 The Sustainable Forest Management Plan (SFMP) 101
6.2.7 The Forest Operations Schedule (FOS), Exemption, and Data Management 102
6.2.8 Summary 102

6.3 The Policy Process of the Fort St. John Pilot Project 102
6.3.1 Agenda Setting 102
6.3.2 Policy Formulation 104
6.3.3 Decision Making 106
6.3.4 Implementation 108
6.4 Policy Content 109
6.4.1 Company-Sponsored PAG as a Domain for Public Involvement 109
6.4.2 Forest Planning 110
6.4.2.1 The Sustainable Forest Management Plan (SFMP) 110
6.4.2.2 Site Level Planning 112
6.4.3 Forest Practices Standards 112
6.4.3.1 Riparian Protection 112
6.4.3.2 Logging and Road Activities 113
6.4.3.3 Reforestation 115
6.4.3.4 Stand Level Biodiversity 117
6.4.3.5 Distribution of Patch Size, Seral Stage and Adjacency 117
6.4.3.6 Soil Disturbance 118
6.4.3.7 The Sustainable Forest Management Matrix (the SFM Matrix) 119
6.4.4 Monitoring and Evaluation 120
6.4.5 Enforcement 120
6.4.6 Adaptive Management and Continuous Improvement 120
6.5 Summary of Policy Change 121
6.5.1 Policy Goals 121
6.5.2 Policy Instruments 121
6.5.3 Instrument Settings 122
6.6 Policy Effects 123
6.7 Consequences of the Fort St. John Pilot Project 124
Chapter Seven Analysis of the Part 10.1 Legislation and the Fort St. John Pilot Project 126
7.1 Explaining from the Policy Regime Framework (PRF) Perspective 126
7.1.1 Actors and Their Interests and Strategies in General 127
7.1.2 Actors' Power Resources 128
7.1.2.1 Structural Power of Business – in the Part 10.1 Policy 128
7.1.2.2 Structural Power of Business – in the FSJPP Policy 129
7.1.2.3 Other Power Resources in Policy Change 129
7.1.2.4 Other Power Resources – in the Part 10.1 Policy 129
7.1.2.5 Other Power Resources – in the FSJPP Policy 130

7.1.3 Actors' Strategies 130
7.1.3.1 Issue Definition Strategies 131
7.1.3.2 Actor-based Strategies 137
7.1.3.3 Institutions Strategies 138
7.1.3.4 Deterrence Strategies – in the FSJPP Policy 140
7.1.4 Summary from the PFR Viewpoints 140
7.2 Explaining from the Advocacy Coalition Framework Perspective 143
7.2.1 Advocacy Coalitions in BC Forest Practices Policy Subsystem in the Late 1990s ... 143
7.2.1.1 Advocacy Coalitions and Policy Brokers – in the Part 10.1 policy Subsystem 144
7.2.1.2 Advocacy Coalitions, Expert Communities, and Policy Brokers – in the FSJPP Policy Subsystem 145
7.2.2 Ideas and Policy-Oriented Learning in BC Forest Practices Policy Subsystem in the Late 1990s 147
7.2.2.1 Ideas and Policy-Oriented Learning Surrounding the Part 10.1 Policy Decision 149
7.2.2.2 Ideas and Policy-Oriented Learning Surrounding the FSJPP Policy 156
7.2.3 Summary of the ACF Viewpoints 162
Chapter Eight Discussions and Conclusions 166
8.1 A Summary of Forest Policy Evolution in BC and Northeast BC 166
8.2 Comparison of the Two Theoretical Frameworks 168
8.3 Summary of the PFR Lens on Case Studies 168
8.4 Summary of the ACF Lens on Case Studies 170
8.5 A Synthesis of the Two Theories 172
8.6 Closing 176
Bibliography 179
Appendix A Interview Letter 196
Appendix B Interview Questionnaire 198
Appendix C Interview Consent Form 204
Appendix D Certificate of Approval Issued by the UBC Behavioral Research Ethics Board 206
Appendix E Part 10.1 Legislation 207
Appendix F Fort St. John Pilot Project Regulation 210
Appendix G Examples of Coding the Interview Transcription 211
Appendix H Examples of Coding the Collected Documents 215
Appendix I Fundamental Reasons, Concepts, Opinions, Concerns and Effects Coded based on Interview Transcriptions 217

List of Tables

Chapter Two

Table 2.1 The ACF versus the PRF 25

Table 2.2 Distribution of Interviewees' Organizations and Regions 31

Chapter Three

Table 3.1 Political History of BC from the 1980s to Present.....38

Chapter Four

Table 4.1 Comments and Responses on Part 10.1 Pilot Project Regulatory Framework.....74

Chapter Five

Table 5.1 Determined AAC for the Fort St. John TSA.....91

Table 5.2 Allocation of AAC to Forest Tenure Holders in the Fort St. John TSA 93

Chapter Six

Table 6.1 CCFM SFM Criteria and CSA SFM elements included in the SFM Matrix 119

List of Figures

Chapter Eight

Figure 8.1 A Modified Policy Regime Framework – with new factors added to the Policy Regime Framework highlighted in bold and colors 176

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Chapter One

Introduction

I.1 New Regulatory Frameworks

The late 1980s and early 1990s brought a wave of renewed concern about protecting environmental values in forests across Canada and in other industrialized nations (Howlett 2001). Many jurisdictions enacted new laws to strengthen the regulation of forest practices and planning, much of which was done through the so-called "command and control" approach to regulation. Prominent examples of this include the Forest Protection Strategy (1994) in Quebec, the Crown Forest Sustainability Act (1994) in Ontario, and the Timber Harvest Planning and Operating Ground Rules in Alberta (1994). One of the most elaborate new regulatory frameworks was introduced in British Columbia, when the *Forest Practices Code* was enacted after intense pressure from environmental groups (Hoberg 2001b).

These new regulatory frameworks have been successful in forcing private firms and government to pay greater attention to environmental concerns. But they have also increased the costs of production, and raised concerns about regulatory efficiency and cost-effectiveness. In Canadian forestry, there has been a significant amount of criticism for over-reliance on command and control regulation (e.g. Pearse 1998; Stanbury and Vertinsky 1998). In response, there have been increased demands to reduce regulatory burdens by shifting away from detailed prescriptive and process based approaches to those that are more based on "results" or "performance." This shift in emphasis is reflected in the Government of British Columbia's replacement of the *Forest Practices Code*[1] with the more results-based *Forest Range and Practices Act*.[2] Although sharing much of the same "command and control" framework as its predecessor, this new Act does provide forest operators with greater flexibility in meeting government-specified objectives.

In an attempt to examine factors associated with policy change, this thesis analyzes two forest policy decisions in British Columbia during the 1990s and the early 2000s and compares the utility of two distinctive theoretical frameworks - one stressing the political balance of power of policy actors and the other emphasizing the causal influence of ideas and the importance of policy-oriented learning. The analysis confirms the utility of the two theoretical frameworks in explaining policy change and identifies the limitations of each of the two theoretical lenses. The research findings also suggest that learning exerts an independent causal influence on policies when uncertainty is high, information is incomplete, and most importantly the policy goal is shared by policy actors. As a result, a new synthesis of the two theories is presented.

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1 R.S.BC 1996. c. 159.

2 S.B.C 2002, c. 69.

1.2 Forest Policy in BC in the 1990s and the Early 2000s

Forest policy in British Columbia in the 1990s and the early 2000s experienced dramatic change, from a focus on increasing environmental protection to reducing costs through regulatory reform. In the first half of the 1990s, changes in BC's forest policies were aimed at transforming the forest industry's business practices to improve environmental performance. Following the 1991 BC Forest Resources Commission's report and the election of the New Democratic Party (NDP) government under Premier Michael Harcourt, two major policy initiatives were introduced: 1) a comprehensive, multi-tiered land use planning that involved the public and 2) the *Forest Practices Code of British Columbia Act* (the *Code*) that resulted in substantial changes to the forest industry across BC. Other policy initiatives such as the Commission on Resource and Environment (CORE), the new Timber Supply Review (TSR), and the Protected Areas Strategy (PAS) were also brought in by the NDP government to accommodate the increasing pressure for "greener" forest policy.

The *Code* came out to address public interest and environmental concerns, with an assumption that if the government and the industry followed the rules in the *Code* and its regulations and guidebooks, they would address all elements of forest management. The *Code* introduced strengthened environmental standards and toughened penalties (Hoberg 2001b, 69), and helped foster public confidence in the forest industry. It addressed the market failure (or externalities) problem and the social value of protecting natural spaces.

Before long, however, the BC forest companies began to blame the *Code* for being overly complex and prescriptive. Many social and economic difficulties such as high delivered wood costs, mill closures, displaced workers, and loss in government revenue were said to be caused by policy decisions, the *Code* and stumpage increase in particular. The *Code* was accused of being ineffective and inequitable to taxpayers and industry, leading to a reduction in corporate investment in the sector and an anxiety in forest communities and the general public (Cook 1998). There were increasing doubts about whether the *Code* necessarily produced or guaranteed better forest management or biological outcomes.

Entering the second half of the decade, the BC forest sector campaigned for policy reform. The government undertook the Job and Timber Accord and a series of government-sponsored forest management projects, in an effort to address timber supply issues, delivered wood costs, and employment of forest workers. The government also reduced stumpage rates and reformed the *Code*, streamlining the forest planning review and approval processes and enacting Part 10.1 for an innovative pilot program. During these policy reforms, new information and concepts were developed and advocated to create shared understanding and promote policy change. Toward the late 1990s and early 2000s, alternative regulatory approaches were tested on the ground, including the Fort St. John Pilot Project conducted in Northeast BC.

When a new, more business-oriented government was elected in 2001, reforms were extended further by replacing the *Code* with the more flexible, results-oriented *Forest Range and Practices Act*.

1.3 Two Theoretical Frameworks for Explaining Policy Change

A variety of approaches have provided explanations for policy change. The Policy Regime Framework (Hoberg 1992, 1998, 2001a) tries to interpret policy by looking at the power dynamics among strategic actors. The Advocacy Coalition Framework (Sabatier & Jenkins-Smith 1993, 1999) seeks to explain policy change by identifying the sources of beliefs that facilitate change. The two frameworks have a lot in common. They both focus on policy domain specific subsystems, and have long term policy change as the dependent variable and exogenous change (or changes in background conditions) as an independent variable. In addition, they both argue that exogenous factors such as public opinion and economic fluctuations can affect the policy subsystem and lead to significant policy change. In absence of external shocks, the two frameworks both maintain that policy change takes place incrementally.

The two theories however differ in many aspects. The Advocacy Coalition Framework focuses on learning, explaining policy change with experience-based changes. It stresses the force of causal and normative arguments in bringing about policy change. It downplays power dynamics, including the structural power of business and interest group strategies. The Advocacy Coalition Framework includes government officials in the advocacy coalition and assigns government officials the role of policy brokers, whose principal function is to find some reasonable compromise which minimizes conflict. The Policy Regime Framework on the other hand focuses on power dynamics and policy change resulting from competing strategic actors brining their resources to bear to influence policy. It emphasizes the effect of business structural power in influencing policy direction. It considers ideas as a means to an end, one of several power resources that strategic actors use to shape policies.

Applying the Policy Regime Framework in their work, entitled *"In Search of Sustainability: British Columbia Forest Policy in the 1990s,"* Cashore *et al* (2001) examined and explained BC's forest policy change in the 1990s.[3] They concluded that the adoption of more environmentally oriented forest practices were explained by a combination of public opinion, a new and more environmentally oriented government, favorable market conditions, and the internationalization of environmental pressure tactics (Hoberg 2001b, 92). How might the Advocacy Coalition Framework, which emphasizes the importance of belief shifts that facilitate policy change, improve the explanation of policy change?

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[3] The seven subsectors included in Cashore *et al*'s (2001, Table 9.1 and Table 9.2) work were land use, forest practices, tenure, First Nations, timber supply, pricing, and jobs; and policy communities examined include MoFR, MoELP, business, environmentalists, labours, First Nations, and communities. Cashore *et al* (2001, Chapter 1, 10 – 7) detail Hoberg's policy regime approach.

1.4 About This Study

This study employs the two theoretical frameworks, the Policy Regime Framework and the Advocacy Coalition Framework, to explain policy change in BC's forest sector in the late 1990s and the early 2000s. The aim is to explore the external and internal agents of policy change, using two case studies of forest practices management in BC: 1) adding Part 10.1 to the *Code* to allow pilot projects to test alternative forest practices regulatory frameworks, and 2) the Fort St. John Pilot Project that is one of the Part 10.1 pilot projects and conducted in Northeast BC. To achieve this objective, this study relates policy change to shifts in political power and belief systems, and uses the case studies to explore crucial causal factors which explain policy change. This study then contrasts the strength of each of the two theoretical frameworks in explaining policy change. It is hoped that the results of this study will illuminate some of the theories of policy change and contribute to future development of the Policy Regime Framework and the Advocacy Coalition Framework.

This study will review literature on policy change and outline the evolution of forest policy in BC and Northeast BC in the 1990s and the early 2000s to provide a theoretical framework and general policy background for the two case studies. A narrative will be presented for each case study[4] in terms of policy process, policy content, and policy change. The analysis that follows addresses four research questions:

(1) How did the decisions of adding Part 10.1 to the *Forest Practices Code* to allow pilot projects to experiment results-based forest practices and permitting such a pilot project in the Fort St. John Timber Supply Area come about?
(2) How much did Part 10.1 and the Fort St. John Pilot Project (FSJPP) diverge from the then-existing forest practices policy in BC?
(3) What is the relative weight of learning and power in explaining the outcomes of the two cases?
(4) How can the insights be used to improve policy theories?

This study gathers government publications, news releases, online documents, research findings, and interview reports that describe the construction of the events, experiences, agenda, and decisions for narration and research analysis. Data regarding the origin, rationale, content and effect of the policy decisions are collected and analyzed. Possible explanations for policy change in each case study are depicted in accordance with each of the two theoretical frameworks. Causal relationship among decision-factors and policy outputs are constructed, by showing how certain conditions lead to other conditions. On the whole,

[4] Following the definition of case study proposed by Gerring (2004, 342), by case study the author means an intensive study of a single unit for the purpose of understanding a larger class of (similar) units for analysis of policy process and policy change.

the results should inform the forest policy community of the potential for and constrains on policy change, and contribute to more effective models of policy change.

1.5 Outline of the Chapters

This dissertation is divided into eight chapters. The introductory chapter provides an overview and background of the study; this chapter also defines the research purposes and research questions. Chapter Two outlines the two theoretical frameworks and research design. Chapter Three gives an overview of the BC forest policy in the 1990s and the early 2000s. Chapter Four presents an account of Part 10.1, including its policy process, policy content, and policy change, along with the pilot projects initiated under Part 10.1. Chapter Five reviews forest policy in Northeast BC in the 1990s and the early 2000s. Chapter Six portrays the Fort St. John Pilot Project, including its policy process, policy content, and policy change. Chapter Seven identifies crucial factors that explain the Part 10.1 policy and the Fort St. John Pilot Project based on each of the two chosen theoretical frameworks. Chapter Eight discusses the strength and weakness of each theoretical framework in explaining policy change, using the empirical data derived from chapter seven, and brings forth conclusions of this study.

Chapter Two

Theoretical Framework and Research Design

2.1 Introduction

Sustainable forest management is not only dependent on the biophysical characteristics of the forest ecosystem in question, but is also subject to the interaction among multiple, interdependent stakeholders living in and outside that particular ecosystem. Differences in values and interests among these stakeholders can lead to conflicts over land use and resource management, which some called resource dilemmas.[1] Forest operation in BC is a classic example of these resource dilemmas.

As described in Chapter One, this study investigates factors that lead to policy change, using multiple-case studies of forest practices policies in BC in the 1990s as a research strategy. This study compares the efficacy of two competing theoretical frameworks - one emphasizing actor-driven power struggles, the other policy-oriented learning. By examining the conditions that lead to policy change, this study also identifies crucial forces for coordination under circumstances of resource dilemmas. As such, it is expected that this study contributes to literature of policy change and resource management.

Aspects of these theoretical arguments are presented in section 2.3, and this study's guiding theoretical frameworks are described in sections 2.4 and 2.5. Section 2.2 describes major study interests, research questions, and research approach. Sections 2.6 to 2.10 denote research hypotheses, research strategies, research variables, data collection, and data analysis.

2. 2 Research Questions

This dissertation traces the external and internal agents of policy change over a decade period, using two case studies of forest practices management in BC, a policy area which underwent a series of policy change in the 1990s. The aim was to relate these agents - shifts in the political power and the belief system in particular – to policy change. In doing so, factors that explain policy change can be explored to illuminate the theories of policy change. Two new forest practice regulatory frameworks that evolved in BC in the late 1990s - one at the provincial level and the other at a timber-supply-area level - are selected as case studies for investigation.

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[1] See Ison, *et al* (2007, 502) and Blackmore (2007, 512) for the nature of resource dilemmas.

In the effort to explain policy change, this study addresses the following research questions:

(1) How did the decisions of a) adding Part 10.1 to the *Forest Practices Code* to allow pilot projects to experiment results-based forest practices and b) permitting such a pilot project in the Fort St. John Timber Supply Area come about?
(2) How much did Part 10.1 and the Fort St. John Pilot Project (FSJPP) diverge from the then-existing forest practices policy in BC?
(3) What is the relative weight of learning and power in explaining the outcomes of the two cases?
(4) How can the insights be used to improve policy theories?

This study pursues the above research questions through case studies to explore how specific actors carried certain ideas and political power into the policy-making process and used them effectively. The research analysis followed two distinctive policy change theoretical frameworks - the Advocacy Coalition Framework (Sabatier and Jenkins-Smith 1993, 1999) and the Policy Regime Framework (Hoberg 2001a). Data collected from public documents and interviews (see Appendices A-D for interview documents and Table 2.2 for a distribution of interviewees' organizations and regions of this study) were analyzed for evidence of pattern matching the two theoretical frameworks. In so doing, the relative utility of each theoretical framework can be examined. The theoretical frameworks chosen in this study were:

(1) The Advocacy Coalition Framework (ACF) that stresses the critical importance of ideas in bringing about policy change, while taking notice of the force of external shocks and the interplay of particular political forces and bureaucratic interests, and

(2) The Policy Regime Framework (PRF) that emphasizes the power dynamics of interest groups and bureaucratic politics, and external shocks as important sources of policy change, while relegating the role of ideas to a power source for strategic actors to use in framing their arguments to promote their interests.

2.3 An Overview of the Theories of Policy Change

2.3.1 Problems with the Conventional Rational Choice Theory – The Role of Social Norms, Institutional Structure, and Information in Policy Change

The conventional rational choice theory emphasizes interests as a key source of policy making and policy change, assuming interests and preferences are known in advance and people are being motivated by material interests. It maintains that the policy outcomes within a market or economic system are the choices based on rational and profit/utility maximizing calculation under the given institutional rules. However,

March and Olsen (1984, 738) contend that institutions (e.g., the bureaucratic agency, the legislative committee, and the court), not just arenas for contending social forces but also collections of standard operating procedures and structures that define and defend interests, may affect policy decisions.

North (1990a, Chapter 9) has noted that the incentives built into the institutional framework dictate the opportunities of actors within an economic system. The investment in information and skills leads to a stock of knowledge and expertise. Once a development path is set on a particular course, the network effect, the organizational process, and the derived subjective modeling of the issues reinforce the course. If a policy initiative provides disincentives to the productivity of the existing system, actors with a stake in the existing system will strive to shape the policy in their interests due to the increasing returns mechanisms. Policies thus evolved reinforce the existing incentives and organizations (North 1990a, 99).[2] Pierson (2000b, 257) argues that such increasing return processes are widespread and often more difficult to reverse in politics.[3]

Moreover, preferences are not always fixed or given, they can be changed or developed through a combination of education, indoctrination, and experience or socialization (March ad Olsen 1984, 739; Coleman 1990, 295-6.)[4]

Briefly, institutions can influence policy making and policy change. Inadequate information and uncertainty, giving rise to a need and an opportunity for instilling or updating interests and preferences through the revision or development of social norms, also affect actors' policy choices. In other words, in addition to interests, institutions and information can also be the sources of policy change.

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[2] Also see Setterfield (1993) and Arthur (1989; 1994) for theory of increasing returns, and Pierson (2000b) for increasing returns in political life.

[3] According to Pierson (2000b), political actions such as exercise of power and social interpretation (i.e., the conceptual framework) are prone to increasing returns (or positive feedback), because political actions often require considerable resource input, demand the transmission of information and cooperation, and are based on the knowledge of actors' perception concerning the issue at hand and environment surrounding it.

[4] However, some (e.g. Cook and Emerson 1978; Elster 1989a, 119 and 1989b, 98) contend that social norms (e.g., trust and justice) have a moral force (e.g., a sense of obligation) that runs counter to individuals' rational considerations therefore cannot be seen in purely rational terms.

2.3.2 Policy Image, Institutions, and Actors in Agenda Setting

Cobb and Elder postulate that the key to understanding agenda building does not lie in the content of issues but rather on their definition: "how an issue is defined … will have important bearing on the nature and eventual outcome of a conflict" (1983, 96). Political actors battle to influence the public and policymakers' perception of an issue in order to affect whether an issue gets onto a policy agenda. Baumgartner and Jones (1993) link the definition of policy images (the issue-definition process) and political institutions to policy agendas. In their view, the political world is never at equilibrium; the process of issue development creates and destroys points of stability (22). Political leaders, equipped with ideas and resources available through social and political institutions, are always seeking to either construct a policy image or destroy one in order to achieve their interests.

Regarding the role of political actors, some emphasize the critical importance of political actors' identities and characteristics (e.g., political leaders, interest groups, professionals, and bureaucrats) and the attitudes, resources, and opportunities of political actors in setting the policy agenda. For example, Kingdon (1995) posits that "the greatest policy change grows out of that coupling of problems, policy proposals, and politics" (19). When policy windows of opportunity are open and compelling problem(s) or political event(s) emerge(s), this coupling is most likely to occur. According to Kingdon (1995), "policy entrepreneurs" play crucial role in gaining the attention of important people, in coupling solutions to problems, and in coupling both problems and solutions to politics; and it is the elected officials and their appointees, rather than career bureaucrats or non-government actors, who play a crucial role throughout the agenda setting process.

2.3.3 Power in Policy Change

Political scientists tend to emphasize the role of political power in policy change. Based on group conflict theory, they consider "power asymmetries" (or "the conflict among rival groups for scarce resources") an important force in shaping political institutions (Hall and Taylor 1996, 937). Also, according to North (1990b), institutional changes are usually path-dependent and incremental rather than spontaneous and dramatic.[5] Only when actors with bargaining power find it advantageous to alter the existing system and the payoff from such changes is expected to increase substantially, significant policy change may take place (North 1990b, 363).

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[5] See Arthur (1994, 112) for conditions that give rise to increasing returns. Pierson (2000b, 257) argues that increasing returns processes are prevalent in economic system and political life. Also see North (1990a, 1990b) for the theory of "increasing returns" and Arthur (1989) and North (1990a, 1990b) for discussions of economic path dependence, and Pierson (1993, 2000a, 2000b, 2000c) for discussions of "path dependence" in the political arena.

Relating to power, Suchman (1997) posits that political power is dependent on the status-quo-system's provision of pragmatic benefits both for individuals and society as a whole. Such political power can be gauged in terms of money (or ability to raise, award or withhold money); information, expertise, skills; membership (size, cohesion, density); legitimacy (constitutional rights to making certain type of binding decisions); coalition possibilities/strength; and reputation.[6] Schlozman and Tierney (1986) have recommended a list of power resources for private organizations in politics. The list includes a reputation for being credible and trustworthy, control over technical information and expertise, a wide circle of contacts with well-known and respected leaders, a large membership, an appealing cause, strategically placed allies, and a large budget. Researchers have shown how interest groups in policy arenas strategically wielded these organizational resources to campaign for their interests (e.g. Schlozman and Tierney 1986; Dowding 1991; Baumgartner and Leech 1998).

Business structural power is another important policy pressure. Fred Block and Charles Lindblom argue that in any capitalist economic systems, business corporations are in a 'privileged position' to influence the levels of economic prosperity and employment that governments deem crucial for their economic performance and chances of reelection (Block 1977; Lindblom 1977, 1982; Wilson 1998, 7).

2.3.4 Actors' Strategies in Policy Change

Bachrach and Baratz (1962) have pointed out the power to exert control on agenda-setting as the most important exercise of political power. Actors adopt strategies to control conflict and agenda-setting, hoping to promote their interests. Such strategies may include framing; forming, breaking or reshuffling alliances; compromising; competing; or feigning. Baumgartner and Leech (1998, 152) offer a summary of lobbying tactics: direct contacts, coalitions, mass media, and presenting research results are examples of the tactics. More recently, Pralle (2006) gives emphasis on the concept of expansion and containment of policy conflict. She lists three categories of conflict expansion and containment strategies - issue definition, actors, and institutions and venues - and details how actors may pursue these strategies in a policy process.

Ideas in policy change

As mentioned in sections 1.3 and 2.1, scholars contend that changes in beliefs have a profound impact on political actions. They note ways by which ideas affect policy decisions (e.g., Goldstein and Keohane 1993, 4).[7] In their view, the ideational context of political discourse, paradigms, policy preferences, or other

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[6] Also see Dowding (1991) for discussions of power resources.

[7] According to Goldstein and Keohane (1993), ideas can affect the understanding of causal connections and therefore expectations concerning the likely outcome of policy choices. Second, when ideas become

shared expectations and interpretation of policy consequences that policy actors operate within may be communicated, translated, and seized as road maps or focal points to articulate actors' interests or improve mutual understanding and update the belief system (Goldstein and Keohane 1993). Campbell (1998, 384-5) argues that ideas (e.g., paradigms, public sentiments, programs, and frames), through various pathways, exert unique effects on policy making.[8] Also, Blyth (1999, Abstract) writes that ideas are weapons to contest the rationale of an existing institutional order, blueprints for alternative institutional design, and conventions which provide institutional stability.

Similar to March and Olsen (1984, 738) and Coleman (1990, 295-6) who emphasize the role of social norms in affecting people's behaviors and choices, some institutional economists and political scientists also note that ideas contribute to the shaping of institutions (e.g., North 1990b, 363; Hall and Taylor 1996, 937). Hall and Taylor (1996, 595-7) argue that the social norms and practices provide moral or cognitive templates (or filters) for interpretations and actions and affect an actor's identities, self-images, and preferences. Such notion echoes Weaver and Rockman's (1993, 460-1) view that the process of institutional change is not only influenced by a given government capability, but also conditioned by other factors such as worldview and culture.

With ideas, preferences can be guided in the bargaining games of policy actors (John 2003, 487), and people can engage in policy deliberation, tailor new model to existing institutions, and create transposition (Campbell 1998, 383).[9]

Issue definition strategies

Because ideas can exert such effects on people's actions and choices, many researchers have pinpointed the importance of issue definition (or framing). An idea's character, meaning, or significance can be influenced by the act of issue definition (or framing), which produces a specific statement that conveys the idea. Issue definition (or framing) influences the image and fortune of an idea in a policy process. When an idea

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institutionalised they often acquire increased power and stability. Third, ideas can affect the outcome when there are multiple possible equilibriums causing coordination problems either among members of a coalition or between negotiating opponents.

8 In Campbell's (1998, 385-6 and 389-390) words, paradigms are ideas of broad theoretical and ontological assumptions about how the world works for defining the terrain of policy discourses and screening the programmatic ideas, and programs are ideas of causal effects and prescriptions for actions for stakeholders' deliberations. As well, frames are ideas of symbols and concepts that help actors to legitimize policy solution to the public (Campbell 1998, 385), and how programmatic ideas are strategically framed is also important (Campbell 1998, 394).

9 In Jacobsen's (1995, p.300) view, this line of argument differs from that of the institutional framework theory, which confers all power on the institutional framework and leaves no space for innovation or ingenuity on the part of actors.

become legitimized as social norms or practices through the political actors' effort in issue definition, the idea is likely to leave an imprint on all succeeding policies.

Rochefort and Cobb (1993, 56-7) examine the malleable nature of public issues and discuss the importance of problem definition in affecting the conception of the seriousness of a problem and the level of attention devoted to it. Similarly, Baumgartner and Leech emphasize the effect of issue definition on policy making. Actors may try to contain conflict by defining the issues in narrow terms to limit public attention and political involvement, while trying to expand the scope of conflict by defining the issues in broader terms to engage a wider range of values and interests in the policy process (Baumgartner and Leech 1998, 39-40).

Campbell specifies four types of ideas - paradigms, public sentiments, programs, and frames - and argues that how these ideas are strategically framed is important (Campbell 1998, 394). Campbell (1998, 385, 394, and 398) observes that strategic actors often deliberately manipulate public sentiments and structure ideas to provide specific solution to policy problems for their own purposes. Stone (1989, 282) writes that "our understanding of real situations is always mediated by ideas; those ideas in turn are created, changed, and fought over in politics." She considers that "problem definition is a process of image making, where the images have to do fundamentally with attributing cause, symbolic devices to manipulate so-called issue characteristics, all the while making it seem as though they are simply describing facts" (1989, 282). Political leaders, Stone (1989, 282) argues, compose "causal stories" that "describe harms and difficulties, attribute them to actions of other individuals or organizations, and thereby claim the right to invoke government power to stop the harm."

As well, Litfin (1994) emphasizes the use of language and symbols in framing an issue and argues that the ability to frame and interpret scientific information is a major source of political power. According to Jacobsen (1995, 294), what is the most important is not an idea's cogency - its intrinsic force, logic, and viability - but how well the idea is framed or defined to suit social values and interests of policy entrepreneurs and/or policymakers.

In short, this line of argument suggests that actors understand the power of ideas and work to shape ideas to promote their interests. They make reference to the meaning or significance of an idea and the established routines, norms, or practices. These ideas and norms are arrived at by effort of issue definition. Accordingly, ideas can be dangerous to foes, helpful to friends, or a heuristic in puzzling situations. Ideas can be contested as a part of any policy debates (Campbell 1998, 384) or serve to reconcile the interests for forming a coalition capable of enacting a winning policy proposal (Jacobsen 1995, 294).

Similarly, Alder and Haas (1992) advocate the need for the political infiltration of an epistemic community to promote its arguments for reality (379), and emphasize the importance of tailoring information to suit the

political goals of decision makers (381). They point out that it appears to be true that "[ideas] close to the mainstream have a greater propensity to acquire influence than those further away" (1992, 381-2) and that expert communities serve to "facilitate or legitimate package deals" and "[broaden] the bargaining space" (Alder and Haas 1992, 382).

In brief, ideas require political infiltration and matching with the existing interest-related criteria to exert policy effects. Scholars have called attention to the influence of the interplay of ideas and interests on policymaking. Jacobsen (1995, 299) suggests that it is plausible to regard the extent to which ideas are politically adaptable as limited by circumstances, interests, and social beliefs. Likewise, Campbell (1998, 400) maintains: "cognitive and normative fit and proper framing are necessary but not inevitably sufficient conditions for policy makers to adopt and deploy a programmatic idea. It is the interaction of ideas and interests that is ultimately the important thing for scholars to consider." Peter John (2003, 487) stresses that ideas are closely connected to political interests, neither determined by them nor determining of them.

Actor-based strategies

Pralle (2006, 15-6) suggests that managing the extent of participation, labeling opponents as enemies, and encouraging conflict (and the appearance of it) constitute actor-based strategies. Actors or coalitions may try to expand (or limit) the number of participants involved in a problem, attract (or defer) prominent or reputable actors to participate in the problem, label (or breakup) contending alliances, and encourage conflict (or consensus) in hopes of expanding (or containing) the conflict. Other actor-based strategies, as Pralle (2006, 16 and 24) has identified, include reshuffling opponents and encouraging consensus and cooperation. "It is not just numbers that matter, who gets involved is also important," writes Pralle (2006, 24).

Institutions and venues strategies

In addition to framing and actor-based strategies, institutions also matter in the policy process. Hoberg (2000, 28) suggests that "institutional rules shape the resources that interests can bring to bear and the strategies that they can adopt in pursuing those interests."

As Pralle (2006) has shown, actors may choose to vary jurisdictional boundaries, pursue different level of authority, or change the rules of the game to increase their chance of success in a policy conflict. For example, Hoberg shows how different institutional structures in Canada and the U.S. influence actor resources and strategies in forest policy. The U.S. system promotes both a reliance on courts and a focus on the federal government. With institutional opportunities for judicialization and nationalization limited, Canadian activists shifted the venue to the international arena (Hoberg 2000; Pralle 2006).

2.3.5 External Shocks in Policy Change

According to Alder and Haas (1992, 380), external shocks (e.g., crises and dramatic events) often accelerate the diffusion of ideas and lend urgency to the search of alternatives; these shocks trigger a quest for expertise, bring about increasing concern and uncertainty about the existing system, and alert decision makers the gravity of the threat. Case studies conducted by researchers have shown that it is much easier for politicians to accept new proposal after external shocks, because the shocks change the conditions sufficiently to minimize the cost of adopting a new approach (Alder and Haas, 1992, 383). As well, Sabatier and Jenkins-Smith, in their policy change theory of Advocacy Coalition Framework (ACF), maintain that shifts in core beliefs barely occur except as a result of "external shocks" to a policy subsystem (see Sections 2.3.7 and 2.4.2 below). Similarly, Hoberg (1992; 2001a) posits that when there is a significant social, political or market change (i.e., an exogenous shock), contradictions within the policy-making system can emerge, and this may subsequently lead to the transformation of the policy regime (see Section 2.4.1 below).

2.3.6 Public Opinion in Policy Change

Public opinion, which is comprised of broad-based attitudes, desires, and political legitimacy, also plays a vital role in policy change (Campbell 1998).[10] Hoberg (2001a) regards ideas and public opinion as, among others, important components that bring along policy change. In Hoberg's view, public opinion is relatively independent from political process and can sometimes become a powerful source of policy change; hence ideas must appeal not only to crucial interests groups but also social needs. Also emphasizing the public's relative autonomy, Jacobsen (1995, 305) argues that "an experienced public is not at the mercy of experts and self-interested parties, because it has reasonable memory and grounds by which to judge political proposals." He believes that "nonelites are not so haplessly manipulated with respect to ideas" and that "[public opinions] can help shape the preferences of other actors regarding the framing of a situation and, consequently, the "correct" policy solution" (310). Campbell (1998, 385 and 392) classifies public sentiment as a type of idea that restricts the normative range of solutions viewed as politically acceptable. He maintains that even if a solution is deemed instrumentally effective, it may not receive serious consideration if it lacks political legitimacy.[11]

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[10] Campbell (1998, 385 and 392) defines public sentiments as the public's ideological assumptions that are situated in the background of the policy deliberation and constrain the normative range of legitimate solutions available to policymakers. He also argues that because public sentiment covers such a wide range of issues, it does not necessarily constitute a coherent, consistent set of issue positions, i.e., broad-based sentiment in one issue area may contradict that in another.

[11] Even so, Campbell (1998, 394) notes that public sentiments and intellectual paradigms are rarely so precise and consistent that they determine specific policy choices in their own right.

2.3.7 Learning in Policy Change

Heclo (1974, 305-6) argues that "Politics finds its sources not only in power but also in uncertainty – men collectively wondering what to do…Governments not only 'power'…they also puzzle. Policy-making is a form of collective puzzlement on society's behalf." Thus, some believe learning is a key source of change in human actions. For example, Sabatier (1987, 650) considers dominant belief systems the key element in a policy-oriented learning process, which tends to lead to policy change. This alternative theoretical paradigm is one that puts greater emphasis on acquisition and utilization of knowledge in the process of policy change. The following sections highlight some key viewpoints of this line of argument.

Bennett & Howlett review the policy change literature that is based on the notion of learning. They recap three types of learning: government learning, lesson-drawing, and social learning, and suggest that the learning process, for each type of learning, involves three key elements: the subject of learning (who learns), the object of learning (learns what), and the results of learning (what effect) (Bennett & Howlett 1992, 278-288). They also find the definition of learning in political science varies considerably between authors, but a learning model generally holds that governments can learn from their experience and they can modify their present actions based on their interpretation of how previous actions failed (Bennett & Howlett 1992, 276).

With regard to who learns, Etheredge (1981, 77-8) suggests that the government actors are the most important learners; an increase in their intelligence and sophistication enhances the effectiveness of government actions. So does Hall (1988) who regards policy change as a result of government learning, and argues that learning is a "deliberate attempt to adjust the goals or techniques of policy in the light of the consequences of past policy and new information so as to better attain the ultimate objectives of governance" (6). On the other hand, Heclo (1974, 306) suggests that "learning can be taken to mean a relatively enduring alternation in behaviour that results from experience; usually this alternation is conceptualized as a change made in reaction to some perceived stimulus." He emphasizes social actors' learning that creates an external environment to which policymakers must respond. Later on, Sabatier (1988), Rose (1991), and Hall (1993) propose that both governmental and social actors are important learners and they influence the behaviour of each other.

Concerning what is learned, Hall (1993) regards policy itself, including policy objectives and policy instruments, as the object of learning. At the same time, Rose's (1991; 1993) notion of "lesson-drawing" also suggests that the programs and policies developed in one jurisdiction can be emulated by others and diffused throughout the world. Alder and Haas (1992, 385-8) too view policy evolution, which is

characterized by the diffusion, selection, and persistence of political innovations, as an important source of learning. Sabatier (1988), instead, considers the belief systems the object of learning.

As to how learning takes place, Haas (1992a, 2) argues that networks of knowledge-based experts, which he refers to as "epistemic communities," play a crucial role in "articulating the cause-and-effect relationships of complex problems, helping states identify their interests, framing the issues for collective debate, proposing specific policies, and identifying salient points for negotiation." An epistemic community, according to Haas (1992a), is "a network of professionals with recognized expertise and competence in a particular domain and an authoritative claim to policy-relevant knowledge within that domain or issue area" (3). These experts share a set of normative and principled beliefs, causal beliefs, notions of validity, and a common policy enterprise. Haas (1992a) posits that "controls over knowledge and information can lead to new patterns of behaviour and prove to be an important determinant of international policy coordination" (2-3). He provides situations where epistemic communities contribute in framing the issues, influencing subsequent negotiations, and bringing about policy change (1992a, 5). The work of Haas (1992a) on epistemic communities, as Goldstein and Keohane (1993, 11 and note 18) have recognized, provides substantial support, within particular institutional contexts, for the argument that ideas matter.

Alternatively, Sabatier and Jenkins-Smith develop the "Advocacy Coalition Framework" (ACF) which maintains that policy-oriented learning is an important source of policy change. They emphasize the importance of shared belief systems to the creation of advocacy coalitions and hence the outcome of public policy, and advocate the role of information in persuading decision-makers and learning that lead to shifts in perceptions (or beliefs, worldviews) in the process of policy change. They also presume that advocacy coalitions group the actors within a policy subsystem, and that each coalition consists of individuals "who share a particular belief system – i.e., a set of basis values, causal assumptions, and problem perceptions – and who show a non-trivial degree of coordinated activity over time" (Sabatier 1988, 139).

In the ACF, a policy subsystem consists of actors from "public and private organizations who are actively concerned with a policy problem" (Sabatier 1988, 131). A paradigm shift, where the fundamental goals held by the dominant coalition(s) are revised in response to what has been learned, rarely comes about, except as a result of "external shocks" to a policy subsystem (Sabatier 1988). Lertzman, Rayner, and Wilson (1996b), however, argue that a non-crisis path to paradigm shift is possible if the learned ideas can become legitimatized through advocacies of actors that possess the freedom of movement. Lertzman, Rayner, and Wilson (1996b) also point out that scientific uncertainty may as well facilitate the non-crisis or incremental path to paradigm shift.

2.4 The Guiding Theoretical Frameworks

One main research objective of this study is to explore the extent of "the evolution of collective understandings among stakeholders" and "the interest-driven power struggle" in explaining forest policy change in BC. The Part 10.1 legislation (the 1999 Bill 82) and the Fort St. John Pilot Project (made effective in December 2001) were selected as research case studies. The Advocacy Coalition Framework (Sabatier and Jenkins-Smith 1993; 1999) and the Policy Regime Framework (Hoberg 2001a) were chosen as representatives of distinctive theoretical approaches. A brief review of the two guiding theories is provided next.

2.4.1 The Policy Regime Framework (the PRF)

The Policy Regime Framework (the PRF)

Based upon an earlier version of the regulatory regime model (Hoberg 1992, 5-6), Hoberg (2001a) develops the Policy Regime Framework (the PRF), arguing that under the potential influence of public opinion, political environment, and socio-economic conditions, the interaction among actors within a particular institutional and ideological context produces distinctive policy outcomes (Hoberg 2001a, 12). The framework has been applied as a general model to explain Canadian forest policy and policy-making in the 1990s (Cashore *et al.* 2001).

Policy as a Political Outcome

In Hoberg's (2001a) regime framework, government's decisions and actions concerning each policy area are essentially political outcomes of interaction of actors within a policy community. Different from classical rational choice approach, Hoberg considers not just material interests but also ideas as factors associated with policy change. Policy makers and other actors, both public and private, all pursue their interests within a particular institutional and ideational context. The institutional and ideational context frames issues, structures incentives, and allocates advantages and disadvantages to different actors. (Hoberg 2001a, 14)

Because the regime approach is centered on strategic actors behaving in accordance with the institutional and ideational contexts, some major pressures for change emerge from within the policy regime. But, the regime components (see below) operate within a larger environment of background conditions, including economic conditions, elections, public opinion, and the broader macro-political system. Powerful pressures for change could emanate from these background conditions (Hoberg 2001a). Accordingly, the Policy

Regime Framework suggests that the dominant institutions, governing ideas, and strategic behaviour of actors influence government actions and policies.

Policy Regime Components – Actors, Institutions, and Ideas

Following the Policy Regime Framework, decisions on any public policies take place as a result of the influence of a distinctive policy regime and the external shocks. The policy regime is formed by three interacting components: (1) the webs of relationships (especially the proximity to power) among actors (both public and private and in terms of the number and variety), (2) the institutions that shape the resources and strategies of actors, and (3) the ideas/beliefs identified and/or held by actors to make sense of their strategies and goal and to restrict the range of alternatives. Policy change takes place when there are powerful pressures emanating from background conditions such as changes in markets or politics, domestic or international. These conditions provide the impetus for change by shifting the resources and strategies available to actors (Hoberg 2001a, 14).

Actors situated in the web of relationship have interests they attempt to pursue through the political process. They also have resources they bring to bear in their efforts to influence public policy, and strategies they use to employ those resources in the pursuit of those interests. Having authority as a political resource and the desire to be reelected, government officials, elected and appointed, are typically the most important actors - distinct from private actors - determining policy choices (Hoberg 2001a, 10 and 13). The relationships among actors are usually uneven, because actors differ significantly in their influence and proximity to power and their ability to affect policy outcomes (Hoberg 2001a, 11).

Institutions structure the authority and relations among government actors, and influence the relations between societal interests and the state. By specifying how interest groups can participate in the policy process, institutional rules shape the resources actors can bring to bear and the strategies they adopt in pursuing those interests (Hoberg 2001a, 11).[12] Actors, cognizant of the structural biases of particular contexts, frequently adopt strategies to alter the institutional arena or ideational context of decisions to promote their own interests (Hoberg 1998, 9).

The PRF views ideas as a means to an end and learning as neither a necessary nor sufficient condition for policy change. Hoberg (2001a) explains that "Ideas inform the interests and strategies of actors, and they can provide valuable political resources for actors" and that "Because of the importance of institutions and ideas, strategic actors attempt to alter institutions and reshape ideas to advance their interests" (12). The

[12] This echoes Sven Steinmo's (1989, 501) remarks that the institutional framework provides the context in which groups and individuals interpret their self-interest and thereby define their self-interest, cited in Jacobsen (1995, 300).

PRF also assumes the tactical role of ideas in policy process, arguing that in framing their arguments, actors appeal to widely shared values and expert authority as much as possible, and that when knowledge is contested, actors select those arguments most consistent with their interests (Hoberg 2001a, 14, 16). Learning occurs only when actors adopt new beliefs about their interests or the best strategies to pursue those interests (Hoberg 2001a, 14). Therefore, learning is neither easy nor inevitable, as actors with conflicting interests will contest the meaning and significance of various consequences (Hoberg 2001a, 17).

Structural Power of Business

Fred Block (1977), Charles Lindblom (1977; 1982) and many others have noted that the most important power resource of business is its control over investment and jobs. This particular type of power resource - structural power of business - puts constraints on the policymaking capacities of elected officials (Wilson 1998, 7; Hoberg 2001a, 15; Bernhagen and Bräuninger 2005, 45).[13] In a market economy, the driving force behind jobs is business investment, thus, governments have a definite incentive to create and maintain a healthy business climate that attracts investments (Hoberg 2001a, 15).

The business structural power argument assumes that elected officials perceive their chances of re-election to increase under a strong economy and reduce under a weak one (Mitchell 1997, 61-2). Hoberg (2001a, 15) argues there is an inverse relationship between profitability and the power resources of industry groups, predicting that when business is booming, industry is less likely to make job-loss threats, and when it does, the threats are taken less seriously. When business is poor and its profitability declines, business threats of shutdowns and layoffs seem very credible, and governments tend to be highly responsive (Hoberg 2001a, 15). In short, reduced profits of capitalists will lead to elected officials' tendency to adopt policies that encourage investment and avoid any policies that decrease investment (M.A. Smith 2000, 146; Hoberg 2001a, 15; Bernhagen and Bräuninger 2005, 45).[14]

Public Opinion and Politicians

The Policy Regime Framework also emphasizes the influence of public opinion and politicians on policy. It professes that big changes in policy are unlikely without a burst in public salience of new values (Hoberg 2001a, 16). Equally, significant changes in policy are unlikely without the intervention of elected officials

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[13] Business structural power is also recognized as the 'business confidence' (Block 1977, 16-7), the 'privileged position of business in the political system of all market oriented societies' (Lindblom 1982, 326), and the 'structural dependence of the state on capital' (Przeworski and Wallerstein 1988; Swank 1992), or as the 'structural power' of business (M.A. Smith 2000, Chapter 7; Bernhagen and Bräuninger 2005, 45).

[14] Moreover, elected officials may make these efforts even without any actions taken by business members against the regime in power, any social ties with business members, or any other direct means of business influence (Lindblom 1977, 175; Block 1977, 19; and M.A Smith 2000, 146).

(Hoberg 2001a, 16). When faced with broader publics who get interested and electoral threats and opportunities, elected officials are motivated to use their power to change policy to advance their interests, so long as they can construct a winning governing coalition, as Hoberg (2001a, 16) explains.

To sum up, the Policy Regime Framework posits that actors participating in a policy regime would try to affect the nature and the outcome of a conflict in hopes of best protecting their interests. Under the influence of public opinion, political environment, and socio-economic conditions, the interaction among actors within a particular institutional and ideological context produces distinctive policy outcomes. Each actor in the policy regime carries a certain degree of political power endowed by the institutional and economic structures, organizes not just material resources but also ideas as political resources, and adopts strategies in pursuit of their goals.

As a result, public policy is determined under the influence of a distinctive policy regime and pressures originating from background conditions such as changes in markets or politics, domestic or international. The changes in background conditions shift the power resources and strategies for actors, thereby providing the impetus for change (Hoberg 2001a, 14).

2.4.2 The Advocacy Coalition Framework (the ACF)

As mentioned in section 2.3.7, Sabatier and Jenkins-Smith's Advocacy Coalition Framework (ACF) considers policy change as a function of: (1) external shocks (e.g., changes in socioeconomic conditions) to a policy subsystem; (2) polity-oriented learning as a result of the interaction of competing advocacy coalitions within a policy subsystem; and (3) the effects of relatively stable system parameters (e.g., constitutional rules, basic socio-cultural values and social structure) (Sabatier and Jenkins-Smith 1999, 121). A policy subsystem consists of those actors from a variety of public and private organizations who are actively concerned with a policy problem or issue, and regularly seek to influence public policy in that domain (Sabatier and Jenkins-Smith 1999, 119). Actors within the subsystem can be aggregated into a number of "advocacy coalitions" each possessing a set of shared normative and causal beliefs and engaging in coordinated activities over time (Sabatier and Jenkins-Smith 1999, 120).[15]

Belief Systems

The belief system of each advocacy coalition includes a three-part hierarchical structure: the deep core (i.e., fundamental normative and ontological axioms) at the highest/broadest level, the policy core beliefs (i.e.,

[15] Sabatier and Jenkins-Smith (1999, 120) also point out that, at any given point in time, the subsystem will usually contain a number of individuals and organizations unassociated with any coalition, but they assume that most will not be important in the long term because they will either leave (out of frustration or lack of interest) or get incorporated into one of the coalitions.

basic policy choices and causal assumptions) at the next level, and a set of secondary aspects at the third level (Sabatier and Jenkins-Smith 1999, 122, 133). Compared to deep core beliefs, policy core beliefs are less rigidly held, most involve empirical elements that may change over a period of time with the gradual accumulation of evidence. The secondary aspects of a belief system are assumed to be even more readily adjusted in light of new data, new experience, or changing strategic considerations (Sabatier and Jenkins-Smith 1999, 122). Therefore, the ACF predicts that coalitions would resist changing their deep core, policy core beliefs, or important secondary aspects of their belief systems – a phenomenon the ACF terms perceptual filtering. Only very solid empirical evidence is likely to lead to change in their belief system (Jenkins-Smith & Sabatier 1993, 43-4; Sabatier and Jenkins-Smith 1999, 123, 125).

Accordingly, policy-oriented learning often only alters secondary aspects of a coalition's belief system. Changes in the core aspects of a policy usually requires a perturbation in non-cognitive factors external to the subsystem such as macro-economic conditions or the rise of a new systematic governing ideologically-based advocacy coalition (Sabatier 1988, 134; Sabatier and Jenkins-Smith 1999, 120, 123, 125).[16] These shocks can dramatically alter the composition and resources of various coalitions and, in turn, public policy within the subsystem (Sabatier and Jenkins-Smith 1999, 123).

Advocacy Coalitions and Policy Brokers

Members of each advocacy coalition act in concert based on their respective belief systems "to manipulate the rules of various government intuitions to achieve" their shared goals (Sabatier 1988, 153). They do so by using information to persuade policymakers, altering the decision choice forum, or supporting government officials who share their views or may even be members of the coalition. Conflicting policy arguments from coalitions, Sabatier (1988, 133, 152) suggests, are normally mediated by a third group of actors, termed 'policy brokers,' whose principle concern is to find some reasonable compromise which will reduce intense conflict. As Sabatier explains, though many policy brokers will have some policy bent, they still show some serious concern with system maintenance; they are interested in keeping the conflict within acceptable limits (1988, 141, 152). In Sabatier's view, high civil servants may be brokers, while acting as policy advocates, and the result of brokering is often some sort of governmental action program.

[16] Nevertheless, Sabatier (1988, 149) professes that in the absence of external perturbations policy-oriented learning may occasionally lead to a revision of core aspects. As noted earlier, Lertzman *et al*. (1996b) also argue that a non-crisis path to paradigm shift is possible if the learned ideas can become legitimized through advocacies of actors/coalitions/politicians/bureaucrats that posses the freedom of movement. In addition, both Sabatier (1988) and Lertzman *et al*. (1996b) recognize that scientific uncertainty may too facilitate the non-crisis of incremental path to paradigm shift.

Policy-Oriented Learning

With an emphasis on information and learning, the ACF, following Heclo (1974, 306), defines policy-oriented learning as relatively enduring alternations of thought or behavioral intentions that result from experience and/or new information and that are concerned with the attainment or revision of policy objectives (Sabatier and Jenkins-Smith 1999, 123). The ACF assumes that such learning is instrumental for better understanding the world in order to further policy objectives (Sabatier and Jenkins-Smith 1999, 123).

It suggests that experience and/or new information is most likely to be developed and accepted, or learned across coalitions 1) in fields where accepted quantitative data and consensual theories are available; 2) in the natural sciences more than the social sciences; 3) when there exists a prestigious professional forum requiring the participation of experts from various coalitions; and 4) in situations involving an intermediate level of informed debate or conflict - high enough to be worth expanding analytical resources but not involving direct normative conflict (Sabatier and Jenkins-Smith 1999, 125).[17] On the other hand, because members of an advocacy coalition are always seeking to improve their understanding of variable states and casual relationships which are consistent with their policy core, Sabatier (1988, 155) asserts, policy-oriented learning within a belief system is relatively unproblematic.

System Parameters and External Shocks

Furthermore, the ACF, like the PRF, agrees that the effects of ideas, and thus the policy-oriented learning, are also dependent on the relatively stable system parameters (e.g., constitutional rules, basic social structure), which may enhance or offset such effects (Sabatier and Jenkins-Smith 1999, 120-1). In short, the ACF considers external disturbances (e.g., changes in socio-economic conditions or the rise of social movement), changes in the systemic governing coalition (e.g., election), or policy decisions and impacts from other subsystems as sources for shifting coalition resources and/or the perception of policy problem and subsequently a policy change (Sabatier and Jenkins-Smith 1999, 120).

[17] The ACF framework posits that at the intermediate level of informed debate or conflict, where each side of the debate or conflict has sufficient resources to criticize the other's causal models and has the incentive to expend scarce resources to engage in an analytical debate, policy-oriented learning across belief systems is most likely to take place (Jenkins-Smith & Sabatier 1993, 50; Sabatier 1988, 155). Also, when a policy debate or conflict forum is prestigious enough to encourage professionals from different coalitions to participate and dominated by professional norms, policy-oriented learning across belief system is likely to occur, because analytical claims are subject to a more restrictive, consensual basis for validation (Sabatier 1988, 156; Jenkins-Smith 1988, 204).

Policy-Oriented Learning across Belief Systems

Policy-oriented learning across belief systems, as Sabatier (1988, 155) posits, requires favorable conditions to facilitate. Such favorable conditions can include technical resources available to engage in a debate and/or a conflict not being between the core aspects of the competing belief systems. For across-belief-system policy-oriented learning, Sabatier (1988, 155) suggests an indicator of a productive debate across coalitions: one or both advocacy coalitions being led to alter policy core aspects or very important secondary aspects of belief system as a result of an observed dialogue rather than a change in external conditions. Nonetheless, Sabatier (1988, 158) professes that while policy analysis and learning can strongly affect secondary aspects of belief systems, changes in the core aspects of subsystem policy are usually the result of alternations in non-cognitive systemic parameters. Also, in a new policy area, knowledge about the seriousness of the problem and the validity of various causal assumptions is normally sufficiently uncertain that the initial governmental program involves a significant research component but little coercion (Sabatier 1988, 152-3). But, as Sabatier (1998, 153) acknowledges, for this kind of 'research' programs to take place, the political resources of those challenging the *status quo* need to be sufficiently modest.

In brief, the ACF argues that there exist sets of core ideas about causation and values in public policy (Sabatier and Jenkins- Smith 1993). It emphasizes the generation of policy ideas/preferences from technical experts and professionals, and considers policy oriented-learning more of a result of 1) the emergence of belief systems, 2) the presence of good performance indicators and the ease of developing causal models, 3) the extent of informed conflict, 4) the presence of prestigious forum requiring participation of experts, and 5) changing preference of beliefs on the part of critical actors (Sabatier 1988, 155; Sabatier 1998, 156).

The ACF differs from interest group politics in that the latter views policy change as a result of political bargaining games of strategic actors (e.g. Dowding 1995, 148) or the appearance of new actors with new preferences (Schlager & Blomquist 1996, 658). From the ACF's viewpoint, it is the updated belief that leads to an alternation in the structure and memberships of the coalitions and therefore the power balance (John 2003, 490). Based on the ACF, public policies can be conceptualized as belief systems (see Dowding 1995) and a history of contest of ideas rather than interests (John 2003, 487).

2.5 Distinguishing the Advocacy Coalition Framework from the Policy Regime Framework

Though similar in some aspects, the PRF and the ACF differ in several viewpoints. The PRF emphasizes that each group of the actors has its own political interests it pursues through the public policy process. In contrast, the ACF focuses on each actor's ideas (or belief systems) about public issues, assuming that actors

would coalesce with others who share the same beliefs to persuade policymakers, alter the decision choice forum, and support government officials who share their views, in hopes of embedding personal ideas (or belief systems) into public policy. As a result, despite both acknowledging the importance of external shocks, their attention to the after-shock driving force for policy change differs distinctly. Actors, according to the ACF, are motivated by shared values and normative conceptions that are most likely developed through policy-oriented learning. The PRF, in contrast, focuses on actors responding based on perceived threats to their interests.

As well, the PRF views government officials (who have authority as a political resource and the desire to be reelected) as autonomous and the most important in determining policy choices, while the ACF considers government officials as policy brokers and part of the dominant coalitions that institute policy program.

In dealing with policy issues affecting the cost of business, the PRF highlights the effect of business structural power, while the ACF stresses the combined effect of perception filtering and policy-oriented learning resulting from analytical debates. Accordingly, the PRF predicts that the resultant policy favors actors exerting sufficient political power, whereas the ACF argues that the policy outcome will be in line with the belief system of those successful in analytical debate. For the major force behind policy change, the PRF puts emphasis on power struggles that safeguard interests; the ACF calls attention to learning and the dictates of technical information that concerns the magnitude and facets of the problem, its causes, and the impacts of various solutions (Sabatier 1988, 153; Sabatier and Jenkins-Smith 1999, 118). Table 2.1 summarizes the similarities and differences between the ACF and the PRF.

Table 2.1 The ACF versus the PRF

	Aspects	**PRF**	**ACF**
Similarities	Unit of analysis	Policy domain specific subsystem	
	Dependent variable	Long-term policy change	
	Independent variable	External shocks	
Differences	Sources of changes	Power struggles that safeguard interests	Learning and shared beliefs
	Role of officials	Having authority in determining policy choices	Policy brokers
	Role of ideas	One kind of power resources	Sources of belief shifts

2.6 Research Hypotheses

Based upon the above two distinctive theoretical frameworks, this study tests the following hypotheses in explaining policy change:

2.6.1 Hypotheses Based on the Policy Regime Framework

Concerning the Influence of Ideas

$H_{PRF\text{-}A:}$ Ideas that are compatible with the interests or values of the relevant public or the views of acknowledged experts in the field are more likely to be embedded in policy outcomes (Hoberg 2001a, 14, 16).

Concerning Public Opinion and Politicians

$H_{PRF\text{-}B:}$ When broader publics get interested and electoral threats emerge, elected officials are more likely to get involved and use their power to change policy to advance their interests (Hoberg 2001a, 16).

Concerning Power Resources

H_{PRF-C}: When the availability of jobs is low, governments are more likely to remain attuned to business interests (Hoberg 2001a, 15).

H_{PRF-D}: Resource-rich actors have higher rates of achieving their own interests than do poorly-resourced ones (Hoberg 2001a; Pralle 2006).

H_{PRF-E}: The interest of government officials, relative to those of other actors, is more likely to be reflected in policy outcomes (Hoberg 2001a, 10, 13).

Concerning Strategic Actions

H_{PRF-F}: Actors proficient in strategies have higher rates of realizing their interests in the policy outcome (Hoberg 2001a, 14).

2.6.2 Hypotheses Based on the Advocacy Coalition Framework

Concerning Advocacy Coalitions

H_{ACF-A}: The lineup of allies and opponents that are formed based on belief systems tends to be stable (Sabatier 1988, 141; Sabatier & Jenkins-Smith 1999, 130-1; Sabatier and Jenkins-Smith 1999, 123-4).

Concerning Policy-Oriented Learning across Coalitions

H_{ACF-B}: Policy-oriented learning across belief systems is more likely to occur in situations involving an intermediate level of conflict - high enough to be worth expending analytical resources but not involving direct normative conflict (Sabatier 1988, 155; Sabatier and Jenkins-Smith 1999, 124-5).

H_{ACF-C}: Policy-oriented learning across belief systems is more likely to occur when there is a prestigious professional forum requiring the participation of experts from various coalitions (Sabatier 1988, 156; Sabatier and Jenkins-Smith 1999, 124-5).

H_{ACF-D}: Policy-oriented learning across belief systems is more likely to occur if accepted quantitative data (e.g., performance indicators) and consensual theories (or the ease of developing causal models) are available (Sabatier 1998, 156; Sabatier and Jenkins-Smith 1999, 124).

Concerning Policy Change

H_{ACF-E}: Critical policy core or important secondary attributes of a governmental program will not be significantly revised as long as the subsystem advocacy coalition that institutes the program remains in power (Sabatier 1988, 148; Sabatier and Jenkins-Smith 1999, 124-5).

H_{ACF-F}: Critical policy core or important secondary aspects attributes of a governmental program will not be significantly revised in the absence of a perturbation external to the subsystem (Sabatier 1988, 148; Sabatier and Jenkins-Smith 1999, 123, 125).

H_{ACF-G}: When there is no widespread agreement on seriousness of problem and importance of various causes - and the political resources of those challenging the *status quo* sufficiently modest - there will be the development of a government program/policy with a strong research component but little coercion (Sabatier 1998, 153).

2.7 Multiple-case Studies as a Research Strategy

Methods of social science research can include experiment, survey, history, case study, and archival analysis. Each approach has advantages and disadvantages. Yin (2003, 1, 5) considers three conditions as important factors in choosing the proper research strategy: (a) the type of research question, (b) the control an investigator has over actual behavioral events, and (c) the focus on contemporary as opposed to historical phenomena. A case study is the preferred strategy to address the “how” or “why” research questions, the problem of investigator having no control of the behavioral events, and a research focusing on contemporary events (Yin 2003, 5). Nonetheless, a case study is not helpful in answering the 'what' questions, or in describing the prevalence of a phenomenon and predicting certain outcomes. Nor does it provide control of the events (Yin 2003, 5-6).

Since this study sought to answer questions of “how” and “why,” it chose case study as a research strategy. In addition, this study adopted multiple-case studies as a research strategy to maximize the quality of research design. Yin (2003, 47) suggests that because the evidence from multiple cases is often considered more compelling, the overall (multiple cases) study is regarded as being more robust. He advises to settle for two or three literal replications when the rival theories are grossly different and the issue at hand does not demand an excessive degree of certainty (2003, 51). In Yin’s (2003, 50) opinion, even with two cases, one can have the possibility of direct replication, because analytic conclusions independently arising from two cases will be more powerful than those coming from a single case alone. If common conclusions from both cases can be arrived at, they will expand the external generalizability of the research findings (Yin, 2003, 53). Following Yin’s recommendations, this study elected to include two case studies, as the two theoretical frameworks examined in this study were not in total contrast.

In this study, each individual case study is treated as a “whole” study, where convergent evidence is sought regarding the facts and conclusions for the case. Each case’s conclusions then provide the information needing replication by other individual cases. Also, both the individual cases and the replication results are included in Chapter Eight for discussions and conclusions. For each individual case, the report indicates how a particular hypothesis is supported (or not supported). Across cases, this

dissertation shows the extent of the (literal and theoretical) replication and why certain cases have certain results, whereas others have contrasting results.

Research variables and their operational measures were identified upon choosing research questions, guiding theories, and research hypotheses. It was then followed by data collection and data analysis. The quality of research design was safeguarded by four criteria: construct validity, internal validity, external validity, and reliability (Yin 2003, 19-20, 36-46). Research variables and their operational measures were selected to represent the abstract concepts being studied (Yin 2003, 34), in hopes of ensuring the construct validity. Hypotheses were designed to reveal causal relationship to improve the internal validity, while multiple case studies research strategy was chosen to increase the external validity, therefore the generalizability of the research finding (Yin 2003, 34-37). It is hoped that such a research design and data collection and analysis procedures can be repeated with the same results, thus demonstrates the reliability of this study (Yin 2003, 34).

2.8 Research Variables

To test the extent the case studies of this study matching the two sets of research hypotheses listed in Section 2.6, the following research variables and their operational measures were identified to represent the abstract concepts being studied.

2.8.1 Independent Variables

The following set of variables depicted the independent variables of the policy processes under study:

1) Pressures resulting from background conditions (or exogenous factors): measured by shifts in socio-economic conditions and public opinion (as indicated by polls on salience of new interests or values), chance of elections, and policy decisions and impacts from other subsystems;
2) Actors' interests: gauged by their goals and objectives, as orally expressed or recorded in written documents;
3) Ideas: revealed by reported or recorded causal perceptions, normative commitments, or policy preferences or approaches based on updated information or experience;
4) Power resources: assessed by business structural power, other power resources such as expertise, skills, capitals, and proximity to authority; and
5) Strategic actions: signaled by issue definition strategies, actor-based strategies, institutions and venue strategies.

2.8.2 Dependent Variables

The next three variables hinted at the policy outcomes and the extent of policy change:

1) Policy-oriented learning: shown by changing of perceptions or behavioral intentions that result from experience and/or new information (Sabatier 1988, 133; Sabatier and Jenkins-Smith 1999, 123);
2) Policy change: deviation of policy goals, objectives, and instruments from the previous ones – being marginal or an installation of a set of new conceptualization (usually described as "paradigmatic" policy change, see Baumgartner & Jones 1993; Hall 1990, 59); and
3) The development of a government program/policy with a strong research component (Sabatier 1988, 152-3).

2.9 Data Collection

Data were collected from multiple sources such as published documents, archival records, and interviews. In addition to using multiple sources of evidence, this study established a database which assembled the collected evidence that converged on the same set of facts or findings (see Appendices G, H, I for parts of the database). A chain of evidence, which linked the research questions, the data collected, and the conclusions drawn, was then produced.

2.9.1 Documentation as a Source of Evidence

Relevant documents such as letters, memoranda, meeting minutes, proposals, progress reports, formal studies or evaluation, and electronic files of newspaper were collected as one of the multiple sources of evidence. Since these documents might not have always been accurate and unbiased, they needed to be used in conjunction with other sources of information to reconstruct events that have taken place. Using specific search term [forest practices code] the following electronic databases were searched for records of relevant events, the events' rationales, and the effects of those events for the period of 1993 to 2001:

1) ProQuest (at http://proquest.umi.com/pqdweb?index=...);
2) LexisNexis Academic: Document (at http://www.lexisnexis.com/us/lnacademic/frame.do?tokenKey=rsh-...);
3) Academic Search Premier;
4) BC Ministry of Forests Library (at http://www.library.for.gov.bc.ca); and
5) Hansard (at http://www.leg.bc.ca/hansard)

Resulting from the 'ProQuest' database, major newspapers in the mid- to late- 1990s like *The Vancouver Sun* (1994; 1997-9), *CanWest News* (1996-7), *British Columbia Report* (1996; 1998), *Financial Post* (1998), *Times-Colonist* (1998-9), *National Post* (2000), *Daily Commercial News and Construction Record* (2000), and *Alaska Highway News* (2000) were found to cover records related to the case studies of this research.

The Globe and Mail (Canada 1993-1999), *The Washington Times* (1996), *The Toronto Star* (1996), *Timber Trades Journal* (1997), and *Maclean's* (1998) also contained relevant news articles, as derived from the 'LexisNexis Academic: Document' database. Similarly, retrieved from the 'Academic Search Premier' database, *Canadian Business* (1997, 70(10): 90-103), and *Maclean's* (1997, 110 (42): 88-103 & 110(5): 86-103), too included applicable documents.

In addition, the BC Ministry of Forests' Library (http://www.library.for.gov.bc.ca) and Hansard (http://www.leg.bc.ca/hansard) provided governmental and legislative data for evidence collection. Opinion polls, policy papers of industry organizations and other stakeholders, research reports on the costs of the *Forest Practices Code*, and other documents pointed out by research interviewees or informants all constituted parts of the research database.

Furthermore, during the process of interviews (see below), documents referred to by interviewees too formed important elements of documentary elements.

2.9.2 Interviews as a Source of Information

To avoid basing on single source of evidence, this study also conducted interviews to explore how business managers, community leaders, environmentalists, and government officials responded to the costs of the *Code* and how the studied forest practices policies - Part 10.1 and the Fort St. John Pilot Project - came about in BC in the late 1990s and the early 2000s.

A list of contacts of potential interviewees was prepared, which included four major groups of actors:

1) Current and formal government officials who were involved in the Part 10.1 and the Fort St. John Pilot Project policy processes;
2) Advisors and representatives of the Fort St. John Pilot Project participating companies;
3) Members of the Fort St. John Pilot Project Public Advisory Group; and
4) Members of the Fort St. John Pilot Project Scientific/Technical Advisory Committee.

An interview protocol was reviewed and approved by the Behavioral Research Ethics Board of the University (Appendix D). The protocol specified the interview questions, the introductory letter, the form of consent, and the handling of confidentiality (see Appendices A-C for interview documents). The interviews were carried out from September 2006 to November 2006 in relevant locations across the province. Each recording or note of interview was then transcribed or summarized and sent to the interviewee to verify accuracy. Table 2.2 shows the number of the interviewees by organizations and regions.

Table 2.2 Distribution of Interviewees' Organizations and Regions

Interviewee ID	Organization	Count by organization	Region	Count by region under each (type of) organization
9	Alberta-Pacific Forest Industries Inc.	1	Boyle, Alberta	1-1
18	Association of BC Forest Professionals	1	Vancouver, BC	1-1
1	BC Oil and Gas Commission	2	Fort St. John, BC	2-2
58	BC Oil and Gas Commission, South/Central West		Fort St. John, BC	
40	Canadian Forest Products Ltd. (Canfor)	9	Vancouver, BC	9-2
50	Canadian Forest Products Ltd. (Canfor), Certification & Market Support, Corporate Forestry & Environment		Vancouver, BC	
14	Canadian Forest Products Ltd. (Canfor), Chetwynd Division,		Chetwynd, BC	9-2
67	Canadian Forest Products Ltd. (Canfor), Chetwynd Division,		Chetwynd, BC	
70	Canadian Forest Products Ltd. (Canfor), Fort St. John Division		Fort St. John, BC	9-4
29	Canadian Forest Products Ltd. (Canfor), Fort St. John Division		Fort St. John, BC	
11	Canadian Forest Products Ltd. (Canfor), Fort St. John Division		Fort St. John, BC	
35	Canadian Forest Products Ltd. (Canfor), Peace Valley OSB		Fort St. John, BC	
31	Canadian Forest Products Ltd. (Canfor), Grande Prairie Division		Alberta, Grande Prairie	9-1
10	Canadian Forest Services	1	Victoria, BC	1-1
34	Council of Forest Industries (COFI)	3	Vancouver, BC	3-1
15	Council of Forest Industries (COFI), Northern Operations		Prince George, BC	3-1

Interviewee ID	Organization	Count by organization	Region	Count by region under each (type of) organization
4	Council of Forest Industries (COFI), Southern Operations		Kelowna, BC	3-1
61	ENAR ESDE (NRSD) INC., Natural Resources Sustainable Development	1	Victoria, BC	1-1
5	Environmental Assessment Office	1	Victoria, BC	1-1
46	Fort St. John Pilot Project, Public Advisory Group (PAG) - Fort St. John Literacy Society	8-1	Fort St. John, BC	8-7
64	Fort St. John Pilot Project, Public Advisory Group (PAG) - Fort St. John Trapper's Association	8-2	Fort St John, BC	
17	Fort St. John Pilot Project, Public Advisory Group (PAG) - Fort St. John Trapper's Association		Fort St John, BC	
22	Fort St. John Pilot Project, Public Advisory Group (PAG) - Independent consultant	8-2	Fort St. John, BC	
59	Fort St. John Pilot Project, Public Advisory Group (PAG) - Independent consultant		Fort St John, BC	
42	Fort St. John Pilot Project, Public Advisory Group (PAG) - Peace River Regional District	8-1	Fort St John, BC	
47	Fort St. John Pilot Project, Public Advisory Group (PAG) - UNBC's operations in the Peace River – Liard region	8-1	Fort St. John, BC	
69	Fort St. John Pilot Project, Public Advisory Group (PAG) - the Chetwynd Environmental Society	8-1	Chetwynd, BC	8-1
32	Fort St. John Pilot Project, STAC, J.S. Thrower & Associates Ltd.	8-1	Kamloops, BC	8-1
13	Fort St. John Pilot Project, STAC, Ministry of Forests and Range, Northern Interior Region	8-1	Prince George, BC	8-1
38	Fort St. John Pilot Project, STAC, the University of British Columbia, Faculty of Forestry, Department of Forest Resources Management	8-3	Vancouver, BC	8-3
62	Fort St. John Pilot Project, STAC, the University of British Columbia, Faculty of Forestry, Department of Forest Resources Management		Vancouver, BC	

Interviewee ID	Organization	Count by organization	Region	Count by region under each (type of) organization
36	Fort St. John Pilot Project, STAC, the University of British Columbia, Faculty of Forestry, Department of Forest Resources Management		Vancouver, BC	
65	Fort St. John Pilot Project, STAC, University of Alberta (Silviculture, Forest Ecology)	8-2	Edmonton, Alberta	8-2
52	Fort St. John Pilot Project, STAC, University of Alberta (Silviculture/Stand Dynamics)		Edmonton, Alberta	
6	Fort St. John Pilot Project, STAC, University of Northern British Columbia (Ecosystem Science and Management)	8-1	Prince George, BC	8-1
24	Independent consultant	3	Fort St John, BC	3-1
39	Independent consultant		Prince George, BC	3-1
63	Independent consultant		Victoria, BC	3-1
19	J.S. Thrower & Associates Ltd.	1	North Vancouver, BC	1-1
44	Louisiana-Pacific Canada Ltd. (LP), Dawson Creek Division	3	Dawson Creek, BC	3-3
16	Louisiana-Pacific Canada Ltd. (LP), Dawson Creek Division		Dawson Creek, BC	
7	Louisiana-Pacific Canada Ltd. (LP), Dawson Creek Division		Dawson Creek, BC	
43	Ministry of Agriculture and Lands	1	Victoria, BC	1-1
33	Ministry of Environment, Peace Region	1	Fort St. John, BC	1-1
23	Ministry of Forests and Range, Northern Interior Forest Region (Forest Health Silviculture)	24	Prince George, BC	24-5
30	Ministry of Forests and Range		Prince George, BC	
8	Ministry of Forests and Range, Northern Interior Forest Region		Prince George, BC	
68	Ministry of Forests and Range, Northern Interior Forest Region		Prince George, BC	
3	Ministry of Forests and Range, Northern Interior Forest Region (Forest Health Silviculture)		Prince George, BC	
49	Ministry of Forests and Range, BCTS, TPL - Peace-Liard		Charlie Lake, BC	24-2

Interviewee ID	Organization	Count by organization	Region	Count by region under each (type of) organization
66	Ministry of Forests and Range, BCTS, TPL –Peace-Liard		Charlie Lake, BC	
51	Ministry of Forests and Range, Evaluation Program (Integrated Resources)		Victoria, BC	24-10
27	Ministry of Forests and Range, Evaluation Program (Integrated Resources)		Victoria, BC	
53	Ministry of Forests and Range, Forest Practices Branch		Victoria, BC	
48	Ministry of Forests and Range, Forest Practices Branch (Harvest and Silviculture Practices)		Victoria, BC	
60	Ministry of Forests and Range, Forest Practices Branch (Harvesting & Silviculture Practices)		Victoria, BC	
2	Ministry of Forests and Range, Forest Practices Branch (Harvesting and Silviculture Practices)		Victoria, BC	
37	Ministry of Forests and Range, Forest Practices Branch (Harvesting And Silviculture Practices)		Victoria, BC	
21	Ministry of Forests and Range, Forest Sector Initiatives		Victoria, BC	
56	Ministry of Forests and Range, Forest Sector Initiatives Section		Victoria, BC	
54	Ministry of Forests and Range, Policy Development & Legislation		Victoria, BC	
25	Ministry of Forests and Range, Forest Practices Board		Burnaby, BC	24-1
57	Ministry of Forests and Range, Fort St John District		Dawson Creek, BC	24-4
20	Ministry of Forests and Range, Fort St. John District		Dawson Creek, BC	
28	Ministry of Forests and Range, Fort St. John District		Dawson Creek, BC	
71	Ministry of Forests and Range, Fort St. John District		Dawson Creek, BC	
45	Ministry of Forests and Range, Headwaters Forest District		McBride, BC	24-1
55	Ministry of Forests and Range, Kalum Forest District		Terrace, BC	24-1

Interviewee ID	Organization	Count by organization	Region	Count by region under each (type of) organization
41	The Treaty 8 Tribal Association	1	Fort St. John, BC	1-1
26	The University of British Columbia, Faculty of Forestry, Faculty of Forestry, Department of Forest Resources Management	1	Vancouver, BC	1-1
12	Timberline Forest Inventory Consultants Ltd.	1	Prince George, BC	1-1

In total, sixty six interviews (seventy one interviewees) were conducted (interviewed). The organizations that the interviewees belong to include forest companies, BC Timber Sale, the Association of BC Forest Professionals, the BC Oil and Gas Commission, the Canadian Forest Services, the Council of Forest Industries (COFI), eight organizations participating in the Public Advisory Group (PAG) of the Fort St. John Pilot Project, and five institutes representative in the Scientific & Technical Advisory Committee (STAC) of the Fort St. John Pilot Project. In addition, there are also interviewees affiliated with independent/private consulting firms, the BC Ministry of Agriculture and Lands, the BC Ministry of Environment, the BC Ministry of Forests and Range, the Treaty Eight Tribal Association, and universities in BC and Alberta. The interviews were conducted across various regions in BC and Alberta, as shown in Table 2.2.

The interview questions were designed to gather information for measuring the research variables listed in Section 2.8. During the interviews, questions about interviewees' professional goals and roles gauged the interests and values/beliefs of policy actors. Each interviewee's strength in influencing policy helped assess the interviewee's power resources. Their use of tactics and resources in directing views or opinions provided information about actors' strategic actions**.** The causal beliefs were uncovered through their views on the strengths and shortcomings of the former *Code* and on the rationale of the new regulatory frameworks under studied. Their reflections on shifts in interests, preferences, or beliefs prior to the new policies suggested the driving forces of a policy change.

In addition, interviewees' reference to academic work or policy experience provided an indication of ideas available for policy advocacy and policy-oriented learning. Their identification of the influential organizations and/or individuals brought to light the key players in the policy processes, while their willingness to continue interacting with other policy players hinted at the formulation of coalitions. Lastly, interviewees' opinions about the major forces, effects, and achievements of the new policy framework conveyed their sense of change or realization of beliefs and/or interests.

2.10 Data Analysis

Both evidence sources - documentation and interview transcripts – were coded with fundamental reasons, concepts, opinions, concerns, and effects of the case study policies for retrieving, as exemplified by Appendixes G and H. Appendix I presents the overall coding based on data collected in this study. These appendices helped trace back to the original evidence and provide materials for reconstructing a story of the event. Data were compared among the interview transcripts and across the interview transcripts and the collected documents. Separate events were combined to formulate a description of a piece of history.

Following data collection and data analysis, this study provided an account for the policy case studies' development and determined the extent of policy change. It then identified how the two chosen policy forces (i.e., collective understandings and power) individually or interactively explained the policy change case studies. Wherever practicable, the analysis also explored how other factors (e.g., market conditions, public opinion, and institutions) constrained or facilitated a policy change.

Contextual analysis was conducted to search for evidence indicating the relevance of the research hypotheses. Causal relationship among decision factors and decision outcomes was explored, whereby certain conditions were shown to lead to other conditions, based on data and the possible explanations. The pattern-matching technique (Yin 2003, Chapter 5) was used for relating the data to the hypotheses. Thus, the extent of matching between the real-life cases and the theory could be revealed. In short, the adoptions of Part 10.1 of the *Forest Practice Code of British Columbia Act* and the Fort St. John Pilot Project were assessed in contemporary context as case studies in this study.

Chapter Three

BC Forest Policy in the 1990s

British Columbia's forest policies in the 1990s and the early 2000s have undergone considerable changes. Included in the changes were the transformation of the province's forest practices regulatory framework that increased the protection of environmental values through prescriptive rules on planning and operations. This chapter provides an overview of forest policy in BC in the 1990s and the early 2000s. It first focuses on the policy efforts in the Premier Mike Harcourt era, especially the enactment of the *Forest Practices Code of British Columbia Act* (the *Code*). It then directs its attention to the policy making in the Premier Glen Clark era and the policy developments during that period. This chapter also gives a background to the revisions in the *Code* legislation, Part 10.1, which empowered pilot projects to test results-based forest practices regulatory frameworks. The chapter ends with a summary section. An overview of the Part 10.1 policy and the Part 10.1 pilot projects will be provided in next chapter.

Before turning to an overview of recent policy developments, a brief political history of British Columbia is useful. For the period since World War II up to 1990, BC was dominated by pro-business conservative parties, mostly under the banner of the Social Credit Party. The social democratic New Democratic Party only held power for several years in the early 1970s. The long period of Social Credit dominance ended in 1991, when the New Democratic Party (NDP) won a majority and was able to remain in power for an entire decade. In 2001, after a stunning drop in political popularity, the NDP were swept out of office by the more conservative, pro-business BC Liberal Party under Premier Gordon Campbell. The BC Liberal Party is not aligned for the more centrist Liberal Party of Canada (BC Legislative Library 2002, 83). A list of the political history of BC from the 1980s to present is shown in Table 3.1.

Table 3.1 Political History of BC from the 1980s to Present

Premier (party)	Period
William Richards Bennett (Social Credit)	December 22, 1975 - August 6, 1986
William N.T.M. Vander Zalm (Social Credit)	August 6, 1986 - April 2, 1991
Rita Margaret Johnston (Social Credit)	April 2, 1991 - November 5, 1991
Michael Franklin Harcourt (New Democratic)	November 5, 1991 - February 22, 1996
Glen David Clark (New Democratic)	February 22, 1996 - August 25, 1999
Dan Miller (New Democratic)	August 25, 1999 - February 24, 2000
Ujjal Dosanjh (New Democratic)	February 24, 2000 - June 5, 2001
Gordon Campbell (Liberal)	June 5, 2001 - present

Source: (1) Province of British Columbia, *Premiers of British Columbia, 1871 - today*. Available at http://www.gov.bc.ca/bcfacts/premiers.html, retrieved on March 24, 2009 (2) BC Legislative Library (2002), *Electoral History of British Columbia, Supplement*, 1987-2001, 83

3.1 Forest Policy in the Harcourt Era

The overwhelming local and international concerns over the management of BC's forest resources in the late '80s and the early '90s resulted in a British Columbia Forest Resources Commission (FRC) report "*The Future of Our Forests*" in April 1991. The FRC report recommended launching a comprehensive, multi-tiered land use planning process that involved the public. The report also suggested establishing a single, all-encompassing code of forest practices that would govern all aspects of forest operations in BC.

Following the FRC recommendations, the Harcourt government (November 1991 to February 1996) focused its forest policy on a number of aspects: land and resource use planning; protecting public interests; preserving natural land, biodiversity, and wildlife heritage; and establishing higher environmental and practice standards. As a result, a new timber supply review process was implemented; a 'Land and Resource Management Plan (LRMP)' was produced for each sub-region in BC, and the *Forest Practices Code of British Columbia Act* (the *Code*) 1996 was legislated.

3.1.1 The Timber Supply Review and Land Use Planning

In Canada, the determination of an allowable annual cut (AAC) is a key component of forest management. The government regulates the timber supply of public forests through periodical determinations of AACs. The method for determining an AAC is complex and varies significantly across Canada. In BC, the process of determining an AAC was put in place during the late 1940s and until the late 1980s an important part of

any AAC determination was a yield analysis,[1] which for decades AAC determination in BC relied upon (Forest Resource Commission 1991, 81-2).

As a result of an inquiry of a Royal Commission in the 70's, the BC *Ministry of Forests Act* and *Forest Act* (1979) were enacted, and the BC Forest Service became the BC Ministry of Forests, charged with managing the forests for integrated use. The statutory framework conferred to the Chief Forester of BC Ministry of Forests the authority to make the AAC determinations. In addition, the Public Sustained Yield Units (PSYUs) were converted into Timber Supply Areas (TSAs), and new categories of licences and agreements replaced the old ones (Forest Resources Commission 1991, Appendix 3, 13).

In the 1980s, concerns over the government's timber supply strategy escalated, including the relevance and quality of timber supply analysis, the 'falldown' effect, and the loss of biodiversity (BC Ministry of Forests 1991, also known as Pedersen/Errico Report). In 1992, the *Forest Act* was revised to require the Chief Forester of BC Ministry of Forests to consider a range of biological, economical, and social factors in the determinations of any AAC, and a new Timber Supply Review (TSR) process that emphasized public participation was established. As a result, the AAC determinations in BC evolved from a simple calculation to a statute-governed decision that considered multiple values and interests. Public input was sought for the identification of objectives and management alternatives, and an AAC would not be determined until public review had been carried out (Rayner 2001).

In addition, the concepts of protective area, conservation biology, and forest ecosystem management became influential in the early 1990s (ABCFP 2005, 1-6). The Harcourt government elected in 1991 initiated a series of policy programs, adding new constraints to forest operations in BC. For example, the new Timber Supply Review (TSR, 1992) process aimed at ensuring sustainable timber supply for the long term. The establishment of the Commission on Resources and Environment (CORE, 1992-1996) and the Land and Resource Management Planning (LRMP) processes provided public objectives and strategies for land and resource management in BC. As well, the Protected Areas Strategy (PAS, 1993) sought to expand parks and protect representative portion (12%) of the provincial land base (Wilson 1998; 2001).

[1] The yield analysis looked at the size of the accessible and operable forest land and calculated the timber volume that could be grown on the forest land based on a particular management regime. The volume was based on the length of time it takes for a stand to reach and maintain its maximum annual growth rate.

3.1.2 The Forest Practices Code of British Columbia Act (the *Code*)

In 1995, the Harcourt government introduced the *Forest Practices Code of British Columbia Act* (the *Code*) to increase the protection of environmental values through prescriptive rules on forest planning and operations. The *Code* provided a legal basis for forest practices requirements, which affected many harvest operations in BC.

The intent of the *Code* was, as reflected in the Preamble to the *Code*, to ensure the "sustainable use of the forests British Columbians hold in trust for future generations." Principal values behind sustainable use included the needs of present and future generations; a land ethic of forest stewardship; a perspective-balanced priority; and ecosystem conservation.[2] The *Code* required that all strategic and operational plans produced under the *Code* be consistent with the management objectives specified in the higher level plans (e.g., the LRMPs). It also called for public review and comment on objectives specified in strategic plans and management approaches stated in key operational plans. Every Forest Development Plan prepared under the *Code* required joint approval by the regional director of BC Ministry of Environment, Lands and Parks and the regional manager of BC Ministry of Forests (Westland Resource Group 1995). Nonetheless, in response to concern over the constraints imposed by the *Forest Practices Code of British Columbia Act* (the *Code*), the government decided to limit the impact of the *Code* on the provincial allowable annual cut, on average, to no greater than six percent on short-term harvest levels.[3]

Following the *Code Act*, some twenty regulations and thirty guidebooks were put in place (Westland Resource Group 1995). Among those, the Biodiversity Guidebook provided improved protection of old growth forests and forest ecosystems and recommended logging to focus on landscape level planning.[4] In addition, the Wildlife Strategy was set out by the BC Ministry of Environment, Lands and Parks in April 1994[5] to establish habitat areas for the identified wildlife. As well, an independent Forest Practices Board was established to audit and investigate public complaints on forest practices (Westland Resource Group 1995)

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2 Preamble to the *Forest Practices Code of BC Act*

3 *Evolution of the Forest Practices Code*, last modified 24 March 1997, at http://www.for.gov.bc.ca/hfp/archives/legislation/FRCINFRO.HTM, accessed on January 13, 2007; Hoberg (2001b, 92) provides a detailed account of the 6% cap on allowable annul cut.

4 The implementation of the Biodiversity Guidebook, however, was limited to having no more than a 4 percent impact on the province's short-term timber supply. The implementation was also limited by agency staff discretion. See Cooperman 1998.

5 The Wildlife Strategy was formally named *Managing British Columbia's Wildlife Heritage – Provincial Wildlife Strategy to 2001*. The vision of the Wildlife Program was to maintain British Columbia's wildlife heritage. The goals of the Wildlife Program included: 1) maintaining the diversity and abundance of native species and their habitats throughout British Columbia, 2) providing a variety of opportunities for the use and enjoyment of wildlife, and 3) people and wildlife living in harmony. See BC Ministry of Environment, Lands and Parks 1996, Preface.

A Forest Practices Code Steering Committee, which consisted of assistant deputy ministers from the BC Ministry of Forests, the BC Ministry of Environment, Lands and Parks, and the BC Ministry of Energy and Mines, was established during the fiscal year of '95/'96 to oversee the implementation of the *Code*. Despite these efforts to install high standards of forest practices and minimize the regulatory impact on timber supply, the *Code* framework was said to be among the toughest compared to forest regulations of selected other jurisdictions (Westland Resource Group 1995).[6]

3.1.3 Forest Renewal BC (FRBC) and Adaptive Management

In addition to instituting the *Code* framework and the Wildlife Strategy, the Harcourt government launched the Forest Renewal BC and the Adaptive Management Initiative to support and advance BC's forest sector and ensure public interests.

In 1994, the government established the Forest Renewal BC (FRBC) and invested the additional stumpage in forest land and communities to renew forestry and forest resource communities. The FRBC continued to operate until April 2002 when it was replaced by the Forest Innovation Investment Account (FIIA), whose main goals included forest management, research, product development and international marketing.[7]

To combat uncertainty and incomplete information concerning forest resources and the biophysical environment, the Harcourt government delivered an initiative during 1995-6 which trained foresters, biologists and technicians on the concepts and methods of adaptive management (Taylor, Kremsater, and Ellis 1997, Summary, iii). Since then, the concept and aspects of adaptive management have been proposed or applied in many forestry experiments, largely on the effects of alternative harvesting patterns or silviculture treatments.[8]

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6 The jurisdictions compared in the review study included Ontario, United Kingdom, Sweden, Finland, Germany, Nova Scotia, five regions of the United States, and three regions of Australia.

7 BC Ministry of Forests 2001-02 annual report; for FIIA programs, see FIIA website http://www.for.gov.bc.ca

8 Major writings on adaptive management include Holling 1978; Walters 1986; Walters and Holling 1990; Lee 1993; and Taylor, Kremsater, and Ellis 1997. Examples of case studies and a proposal on designing an adaptive management program for BC forests can be found in Taylor, Kremsater, and Ellis (1997, Appendixes 1, 2). More recent examples of application of adaptive management include Taylor (2000a; 2000b) and Scott-May and Field (2004).

3.1.4 The 1995 FSSC Task Force Report

In 1993, the Harcourt government formed the Forest Sector Strategy Committee (FSSC) to develop a shared vision between forest preservation advocates and forest stakeholders. A Task Force that involved government, industry, forest workers, and academia was appointed to make recommendations to the FSSC. In September 1995, based on benchmarking visits to operations recognized for excellence in forest management, the Task Force submitted a report titled *Forest Management Strategy and Action-Plan for British Columbia.* The report suggested addressing the "falldown" effect, public expectations for managing non-timber values, and the timber supply impact of new forest policies (e.g., the PAS, TSR, and the *Code*). Moreover, the FSSC Task Force report identified key features of superior forest management: a powerful forest information system, a local forest manager possessing clear responsibility for forest management and the results on the ground, timely reforestation, certainty on land and resource use, and area-based rather than volume-based tenures (BC Forest Sector Strategy Committee Task Force 1995, Executive Summary).

With these findings, the FSSC Task Force concluded that forest management in BC should be based on measurable targets for timber and non-timber resource values, assign local responsibility and accountability, and test intensive management in pilot areas (BC Forest Sector Strategy Committee Task Force 1995, Executive Summary). The FSSC Task Force report was later cited by the proponents of the Fort St. John Pilot Project, a results-based Code pilot project conducted in Northeast BC under the new Part 10.1 policy in their proposal in 1999 (see details in Chapter 6) to support the rationale of their proposal.[9]

3.2 Forest Policy in the Clark Era

Inheriting Harcourt government's policy framework, the Clark government (February 1996 to August 1999) endeavored to continue the policy legacy and proceed with new initiatives in response to new challenges. Under the quota-based Softwood Lumber Agreement, dated April 1, 1996, BC forest companies were restricted in the U.S. market place.[10] Also, the designation of new parks between 1996 and 1997 further reduced the land base for timber harvest, adding another constraint to forest operations in BC.

By the end of 1996, the first round of the new timber supply review (TSR1) was completed for all forest management units in the province, resulting in AAC reductions in 32 units, increases in 19 units, and status quo within 20 units. In many cases the increase in AACs was the result of changes in technology,

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[9] Personal communication with a representative of the Fort St. John Pilot Project participants, also see Canadian Forest Products Ltd (1999, 4).

[10] The agreement provided fee-free access to the United States for 14.7 billion board feet of lumber from British Columbia, Alberta, Ontario, and Quebec. Fees above 14.7 billion board feet are staggered (graduated export charges will be levied above that level), and in period of high lumber prices, the fee-free volumes will be allowed to increase above the basic 14.7 billion board feet. Information source: Canada Foreign Affairs and International Trade Canada website, http://www.international.gc.ca/eicb/softwood/sla-en.asp, accessed on January 28, 2007.

permitting harvesting in previously uneconomic forests, or improved information about forest characteristics (BC Ministry of Forests 1997b). The reductions, on the other hand, were likely related to five factors: the decline of conventional coniferous harvest, the high harvesting cost in difficult terrains, the designation of protected areas, the new forest management guidelines, and timber harvesting moving into second-growth forests (BC Ministry of Forests 1997b). In short, quality coniferous volume was declining in some areas, which provided an indication of "falldown," while pressure was put on both the forest companies and the government to search for new equilibrium for business, social, and ecological interests.

Faced with challenges resulting from the policy legacies and new market pressure, the Clark government was pressured to focus on mitigating the undesirable conditions for forest operations. From introducing the idea of professional accountability, the programs of the Job and Timber Accord, and a series of pilot programs designed to foster innovation in forest practice and forest policy, the Clark government attempted to address the problem of timber supply, delivered wood costs, and employment of forest workers. The following sections give an account of forest policy in the Clark era.

3.2.1 Forest Industry's Economic Losses and the KPMG Study

Subsequent to the enactment of the *Code*, and due to a global market structural change (e.g., the Asian economic crisis) after the early 1990s, the BC forest industry faced significant economic losses in 1996, 1997 and 1998. At a December 1996 meeting of the Forest Sector Strategy Committee (FSSC), the forest industry representatives presented a report on the state of the industry entitled *Industry on the Brink*. The report raised concerns about profitability in the wake of cost pressures resulting from the *Code* and stumpage increases.

Responding to the concerns, the BC Ministry of Forests employed KPMG to study the size of delivered wood costs increases and their causes. The resulting study was published in April 1997 and it suggested that, on average, the cost increase attributable to non-*Code* related cost drivers (e.g., price and rate increases, land use issues, non-code-related regulations, and tenure administration) was $\$8.4/m^3$. The cost increase attributable to *Code*-related cost drivers (e.g., planning and administration, forest practices) was $\$12.22/m^3$, a figure much higher than what the government had originally estimated.[11]

The forest industry trade group, the Council of Forest Industries (COFI), used the KPMG report to further emphasize that the *Code* caused a dramatic increase (i.e., 75% in the period of 1992 - 1996) in delivered wood costs and pushed for a policy change (COFI 1997; BC Hansard 1997, June, 16(5): 13777). Although

[11] For the Northern Interior, the cost increase attributable to non-*Code* related cost drivers was $\$6.32/m^3$ (44.8%), and $\$7.78/m^3$ (55%) attributable to code-related cost drivers. See KPMG & Parrin, Thorau & Associated Ltd 1997.

various reports show different figures and trends,[12] cost was obviously one of the paramount concerns that the BC forest industry had over the enactment of the *Code*.

3.2.2 The Concept of Professional Reliance and Professional Accountability

Since the implementation of the *Code*, there had been widespread delay in approval for the *Code*'s forest operational plans because those plans had to be prepared, signed and sealed by industry professional foresters and reviewed and approved by government professional foresters. In February 1996, the Association of BC Forest Professionals (ABCFP), the BC Ministry of Forests, and the Council of Forest Industries (COFI) together established a Joint Professional Accountability Task Force to tackle the problem. The Task Force analyzed the forest operational plans' review and approval processes and examined the role of professional foresters in the processes. It then suggested placing a greater emphasis and reliance on the obligations and accountability of professional foresters. In its opinion, such an emphasis could reduce the process delay.

The Joint Professional Accountability Task Force considered the Silviculture Prescription[13] a typical operational plan where increased reliance on professionalism and professional accountability could play a significant role in reducing the delay (BC Professional Accountability Task Force 1996, Summary). It was therefore recommended that there could be a greater recognition of, and reliance on, the professional accountability and professionalism of foresters in the preparing and review processes of the Silviculture Prescriptions. Practices standards for professional foresters and discretion criteria for district managers during the review and approval process of Silviculture Prescriptions were proposed. **S**treamlining the review and approval processes was also suggested. In 1998, the government accepted the recommendations and undertook the training program (BC Hansard 1999, 22 June, 16(9):13898), designed to promote a new

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[12] The *Pricewaterhouse* data had shown that the costs were trending down - a reduction in the average cost of logging on Crown lands from $88/m^3 in '97 down to $79/m^3, as recorded in BC Hansard 1997, 16(5): 13777.

[13] Since 1987 the *Forest Act* was changed to ensure that basic silviculture would be achieved. Beginning in 1988, forest companies in BC were required to submit a Pre-Harvest Silviculture Prescription (PHSP) for every cutting permit to define how they were going to establish plantation and maintain free-growing; companies were also liable to the associated planning and reforestation costs. Therefore, after 1987, whenever companies logged an area, they had a corresponding liability in their financial statement, and each Silviculture Prescription had to be prepared, signed, and sealed by the companies' professional foresters, and reviewed by the government's professional foresters and signed off by the government (BC Ministry of Forests Annual Report, and personal communication with a silviculturalist formerly involved in the Fort St. John Pilot Project). Silviculture Prescription usually exemplified the high transaction cost and do-loop nature of the *Code.* An informant from the BC Ministry of Forests commented (personal communication): "A lot of work was done in preparation stage, but just the time it took at the approval stage was a problem for the licensee too. A licensee [lost] its control of its wanting to get out there and doing the stuff, which probably means actually cutting tree down, but it stuck waiting for the plan to be approved." Reforestation in the unlicensed portions of TSAs however remained the responsibility of the BC Ministry of Forests. See BC Forest Resources Commission 1991, page 13 of Appendix 3.

culture within which high quality Silviculture Prescriptions would be submitted and approved in a reasonable time period (BC Professional Accountability Task Force 1996, Summary).

3.2.3 The Jobs and Timber Accord, Operational Planning Review, and Streamlining the Code

On March 21, 1996, the BC Premier Glen Clark introduced the concept of a Jobs and Timber Accord to complete the long-term labour market renewal plan for BC's forest sector that began under the Forest Renewal BC (FRBC). The Accord's main goal was to create 21,000 forest sector direct jobs by December 31, 2001.

The Jobs and Timber Accord was a negotiated agreement between the NDP government and the forest industry to enhance economic stability within the forest sector.[14] The employment opportunity was to come from the forest industry's job commitments and its devotion to the value-added manufacturing sector, whereas the government assured increased short term and long term timber supply (BC Ministry of Forests, 1997c, p.7). The FRBC provided support to the Jobs and Timber Accord with funds and programs for logging companies, Small Business Forest Enterprise Program (SBFEP, later became BCTS), and the remanufacturing sector (BC Ministry of Forests 1997c, 5-7). Hoberg (2001c) presents an account of this Jobs and Timber Accord policy initiative, in terms of it policy formulation, decision making, and implementation,

During the Job and Timber Accord process, the government received a long issue-list made by the forest industry for policy change. The government formed an Operational Planning Review Panel to examine areas for improved forest operational planning, cutting red tapes, and minimizing costs.[15] The number of operational plans, the extent of professional reliance, and the approvals of cutblocks were among the reviewed items. In 1996, following the review panel's recommendations, the government introduced a series of legislative amendments to the *Code* to encourage innovative forest practices, facilitate small scale salvage, improve small business administration, and advance enforcement measures (BC Ministry of Forests, BC Ministry of Environment, Lands and Parks, and BC Ministry of Energy and Mines 1998, 1-1 ~ 1.2). In 1997, further revision of the *Code* was brought in through Forest Statutes Amendment Act (Bill 47) to reduce administrative processes and provide a $\$5/m^3$ ~ $\$7/m^3$ cost relief for the forest industry (BC

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[14] An ad hoc administrative body, consisted of 5 Deputy Ministers and 17 corporate Chief Executive Officers and chaired by the Premier's Deputy Minister, dealt with some twenty issues in detail for the Accord. Fiber flow, the number of operation plans required, a cultural shift toward professional reliance, interaction with higher level plans, approvals of cut blocks, average block size, adjacency and green-up were among the issue-list. For complete list of the 20 issues, see BC Ministry of Forests, BC Ministry of Environment, Lands and Parks, BC Ministry of Energy and Mines 1998, 1-3 ~ 1-4.

[15] The review panel consisted of 18 employees from four ministers. Aspects of operational planning subject to review included road work, timber harvesting, silviculture, mining, and petroleum related activities. See BC Forest Service 1996.

Forest Service, 1996). As such, some forest operation plans required under the *Code* were eliminated and consolidated, while the administrative rules were simplified.[16] The *Code*'s streamlining continued in the '98/'99 fiscal year with the same objective of making the regulations simpler and more cost-effective for the forest industry (BC Ministry of Forests 2001c; Forest Statute Amendment Act 1998 - Bill 34).

The 1997 amendments to the *Code* and the *Forest Act* also specified that only the objectives and strategies specified in the land and resources management plan (LRMP) would provide directions for forest practices. In August 1997, a policy statement stipulated that old growth management areas (OGMAs) could be established in the non-contributing land base. As well, the Chief Forester also instructed District Managers of the BC Ministry of Forests "not [to] consider representativeness at a scale finer than the biogeoclimatic ecosystem classification variant level when establishing landscape unit objectives." Moreover, some provisions of the *Code*, such as those for landscape-level biodiversity, remained unenforceable; their impact on timber supply was thus minimal.

The Job and Timber Accord improved the timber inventory and made a percentage of sawn timber available to remanufacturing segments at market prices. The Small Business Forest Enterprise Program (later became BCTS) also set aside part of its allowable annual cut to the remanufacturing portion of the program (BC Ministry of Forests 1997c, 7). In addition, in 1998, legislation was modified to allow various piloting programs to facilitate sustainable employment.[17] Based on this legislative modification, the provincial government also entered into the Innovative Forest Practices Agreements (IFPAs) and other enhanced forest practices agreements with forest companies to test innovative forestry practices (see below). In return, the participating forest companies had the opportunity to increase the allowable annual cut (AAC) for enhancing and maintaining employment in the forest sector (BC Ministry of Forests 1997c, 3).

In sum, forest companies in BC were encouraged to join the Jobs and Timber Accord (BC Ministry of Forests 1997c, 10), and the Accord produced benefits for the displaced forest workers. But, it did not appear to overcome the lack of business confidence in investing in BC forest sector (BC Hansard 1999, 24 June, 16(12): 13975; Hoberg 2001c).

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[16] Those redesigned planning and approval requirements included key components of the silviculture prescriptions, cutting permits, logging permits, road permits, engineering estimates, special-use permits, road-use permits, and licences to cut, see BC Ministry of Forests Annual Report 98/99, p.5 and personal communication with an interviewee formerly a staff member of the BC Ministry of Forests.

[17] Examples of such programs include: community forest tenures, exemption of licensees from the 5% take-back of allowable annual cut if under-harvested timber volumes were associated with job creation, reinstating the 5% take-back of allowable annual cut on licence transfers if more forest sector jobs were created, and permitting forest tenure holders to own or lease timber processing facilities. These provisions were instituted under the *Forest Statute Amendment Act* 1998 (Bill 34)

3.2.4 Enhanced Forest Management Pilot Projects (EFMPPs) and Innovative Forest Practices Agreements (IFPAs)

In support of the Jobs and Timber Accord and following the recommendation of the BC FSSC Task Force (1995), the Clark government formed a steering committee that boasted academia (e.g. Dr. Gordon Baskerville and others), industry (e.g. Weyerhaeuser; Canfor), and the three resource ministries to buttress the Enhanced Forest Management Pilot Projects (EFMPPs).[18] The EFMPPs, through the FRBC funding, intended to address the "falldown" in timber supply and long-term certainty in timber harvest level with enhanced forest management.

From September 1995 to March 2003, four EFMPPs were conducted in about 200,000 hectares of the provincial forest area.[19] Each project was a cooperative effort between the forest industry, the government, forest workers, and the academic community. These projects were bolstered by support from each respective technical advisory committee (TAC) and the committee's short- and long- term enhanced forest management strategies. The existing forest operational plans were modified to accommodate the EFMPPs' activities.[20] The EFMPP program ended in March 2003 when the BC Ministry of Forests was going through a significant reorganization.

In November 1999, the Pricewatercoopers produced a review report on the performances of the first three EFMPPs and concluded that many of the forestry strategies and techniques could be transferred to other areas of the province to address the effect of the "falldown" in timber supply (BC Ministry of Forests, 1999d). The report also emphasized the essential role of the technical advisory committee and the importance of performance targets for achieving the goals of each EFMPP.[21] In 2004, the Forest Research Extension Partnership (FORREX--Firth Hollin Resource Science Corp) reviewed the fourth project and found the project positive and educational but having limited industry participation and little short-term effectiveness that forest companies could benefit from (FORREX-Firth Hollin Resource Science Corp 2004).

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18 Personal communication with a BC Ministry of Forests staff member

19 These EFMPPs include: the Invermere EFMPP (led by the Invermere Forest District), the Weyerhaeuser TFL 39 (led by formerly McMillan Bloedel then Weyerhaeuser), the Babine EFMPP (led by Forest Licensees in Burns Lake), and the Robson Valley EFMPP (led by the former Robson Valley Forest District).

20 BC Ministry of Forests EFMPP website, http://www.for.gov.bc.ca/hcp/enhanced, accessed on October 29, 2006; personal communication with a BC Ministry of Forests staff member

21 Future pilots for testing other strategic issues such as tenure reform, variable retention, and First Nations interest were suggested (BC Ministry of Forests 1999d). Evidence for direct link to forest policy was found in EFMPP program. For example, information collected by the Invermere EFMPP, such as reduced time to achieve 3-m green-up and reduced average regeneration delay, was used to improve the timber supply estimates in determining the allowable annual cut in the second provincial Timber Supply Review (TSR2) for Invermere Forest District. See Innes 2003.

Originating in the 1994 Forest Renewal Plan, the Innovative Forestry Practices Agreements (IFPAs) were agreements between forest companies and the Minister of Forests, aiming at testing innovative forestry practices and enhancing long-term commitment for specific operating areas. Enabled in 1996 through Section 59.1 of the *Forest Act* the government could increase the harvest level allocated to the IFPA participating forest companies (Breakthrough Forest Solutions Inc., 2006). Like the EFMPPs, the IFPAs became an avenue to help enhance and maintain employment in the forest sector. But, different from the ministry-based EFMPPs, the IFPA program was an industry-led endeavor, where the BC Ministry of Forests only put out guidelines and checked on industry performance via an extensive list of performance indicators (Innes 2003, 353). The eligibility of IFPAs' activities was determined by the BC Ministry of Forests, and the financial support also came from the FRBC.

The first several IFPAs were in smaller scale, carried out by individual forest tenure holders;[22] it soon progressed to a state where IFPAs were done cooperatively at a Timber Supply Area (TSA) level.[23] Some IFPAs continued to operate even when the Jobs and Timber Accord had ended.[24] It is noted that Canfor, which was, and still is, the primary participating forest company of the Fort St. John Pilot Project, a case study of this dissertation, was the major partner in some of these projects.[25] In brief, the IFPA process appeared to have stimulated considerable interest, resulting in investment in forest inventory and growth data, and improved forest management and working relationships between forest companies in timber supply areas.[26]

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22 An IFPA in a small area could mean that a small portion of tenure holders within a timber supply area got a better allowable annual cut (AAC) and had funding coming to them from the FRBC. They were able to increase their AAC but maybe detriment to other licensees around them, since others weren't getting as good a venue (personal communication with a BC Ministry of Forests staff member). Others also questioned a system that enabled government revenues to be used to pay for activities that resulted in industry party receiving benefit (i.e., incremental annual allowable cut) (Higgins 1999).

23 In the view of a government informant, this was a better and easier way to work with, because when the increased AAC came in, the participating tenure holders could split it up among themselves, everybody worked side by side, sometime with First Nations' participation (Personal communication with a BC Ministry of Forests staff member)

24 Individual, a smaller scale type of IFPA included the Interfor's Adams Lake IFPA (announced in 1997), the Lignum IFPA (announced in 1997), and the Interfor's Hope IFPA (also announced in 1997). District (Timber Supply Area scale) level IFPAs included the Arrow IFPA (announced in 1998), the Merritt IFPA (announced in 1998), the Vanderhoof IFPA (announced in 1999), the Morice & Lakes IFPA (announced in 1999), and the Okanagan IFPA (announced in 2001). The Vanderhoof IFPA was offered to all forest licensees in the district. They include Canfor, Fraser Lake Sawmills Ltd., etc., according to BC Ministry of Forests, "*IFPA will maintain jobs, increase forest productivity – Vanderhoof Forest District," News Release, 8* March, 1999. Also see Breakthrough Forest Solutions Inc. (2006, 8) and BC Ministry of Forests (1998a).

25 The Babine EFMPP was later converted into an IFPA and joined the Morice & Lakes IFPA; and one of the major partners in the Morice Lake IFPA and Vanderhoof IFPA was Canfor (personal communication with an industry consultant involved in some of these pilot projects).

26 In some cases, better relations with First Nations were also established. See Breakthrough Forest Solutions Inc. 2006, 4-5.

One major problem with the IFPAs was the lack of incentives for participants to look at other aspects of forestry but an increase in allowable annual cut. Despite the overall positive reviews, these EFMPPs and IFPAs seemed not solving the problems (e.g., increased costs, the lack of flexibility for area-specific variations) faced by the forest industry (Innes 2003, 350). Consequently, calls for changes to the *Code* continued, but one may reasonably presume that the industry's experience with EFMPP and IFPA could bring advantage in future progression for these selected groups.[27]

3.2.5 Stumpage Rate Adjustments

The government lowered the stumpage rate to further mitigate the business difficulties that BC forest industry encountered.[28] The stumpage rate effective June 1, 1998 reduced the stumpage charge by an average of \$8.10/m^3 on the Coast, and \$3.50/m^3 in the Interior. The stumpage formula was also revised to include chip prices in addition to lumber prices[29] to reflect price fluctuations of both chip and lumber.[30]

In between October 1997 and May 1998, the stumpage reductions dropped average stumpage rates by \$9.67/m^3 (or 28%) on the Coast and \$9.19/m^3 (or 30%) in the Interior (BC Ministry of Forests, 1998b). These reductions were in addition to cost reductions announced previously through streamlining the *Code*, as Forests Minister David Zirnhelt stated: "Reducing stumpage rates and cutting red tape mean we've now cut costs faced by the forest industry by some \$14/m^3."[31]

Nevertheless, the Council of Forest Industries (COFI) continued to allege that major influences on the industry's overall results were the lower chip revenues and the higher logging costs.[32] In response, the government reduced the stumpage rate again on October 1, 1998,[33] and later yet again in early 1999.[34] And,

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27 Personal communication with an industry consultant who was involved in the EFMPPs and the IFPAs

28 BC forest industry suffered losses beginning in 1996. The industry lost \$192 million for 1997, following the loss of \$290 million in 1996. See COFI 1998b.

29 Historically, overall stumpage rates were determined based on lumber prices only. See BC Ministry of Forests 1998b.

30 See BC Ministry of Forests 2001c, 14. Information concerning stumpage adjustment can also be found in BC Ministry of Forests 1998c; BC Ministry of Forests 1998b; and COFI 1998a.

31 Ibid

32 According to COFI, the average cost of logging on Crown lands continued to increase, rising from \$50/m^3 to \$88/m^3 in 1997, see details figures in the COFI 1998b

33 This time the stumpage rate was reduced with an average of \$2.19/m^3 for the Coast and \$1.21/m^3 for the Interior, which led to a total reduction of \$13.29/m^3 (or 38.4%) on the Coast and \$11.02/m^3 (or 36%) in the Interior since 1997. See BC Ministry of Forests 1998d

34 Effective January 1, 1999, the average Coastal stumpage rate for sawlogs became \$25.16/m^3, the stumpage rate for Interior sawlogs became \$26.48/m^3. Stumpage for pulp logs remained at \$0.25/m^3. This quarterly adjustment was market-driven, because the US lumber market price strengthened, and lower Canadian dollar also improved the price for BC lumber. See BC Ministry of Forests 1998f.

from January 1998 to January 1999, average stumpage rate was down 30% in the coastal area and 24% in the interior area (BC Ministry of Forests, 1998f).

Overall, in 1998 alone, the government policy change accounted for a $200 million reduction in stumpage and another $250 million reduction due to regular adjustments (BC Ministry of Forests 1998f).

3.2.6 Forest Action Plan

Despite all the relief programs that the BC government offered, the forest industry's concerns over the increased costs induced by the province's forest policies, the *Code* in particular, did not fade away. The Council of Forest Industries (COFI) met with Premier Glen Clark in October 1998 and stressed the difficulty caused by the province's forest policy (COFI 1998c):

> "While the Asian financial predicament [was] real, more fundamental domestic issues [were] the causes of the [industry's deepening crisis]. While the BC industry [was] reeling, competitors in the rest of Canada and in the US [were] faring quite well."

Shortly after, COFI submitted a "30-day list" of recommended government actions that, according to COFI, when implemented would meet the immediate needs of forest companies and address the deepening crisis in forest resource communities. Many items on the list were related to the cost of regulation and administration (COFI 1998c). The Union of British Columbia Municipalities (UBCM), representing more than 120 forestry resource communities in BC, shared COFI's perspective on the critical need for immediate reduction in logging cost (COFI, 1998c).

In late 1998, following COFI's submission of the "30-day list," the Clark government formed an Economic Council of Ministers to provide strategic directions for a Forest Action Plan. The ensuing Plan included short- and long- term actions to help stabilize forest resource communities and to diversify and modernize the industry (BC Ministry of Forests Annual Report, 98/99, p.3; BC Ministry of Forests 1998e*;* BC Ministry of Forests 1999a*;* BC Ministry of Forests 2001c, 8, 21). It sought to bring government policies closer to market realities,[35] simplify the administrative requirements,[36] adjust the billing procedures,[37] and implement efficiency measures.[38] Meanwhile, the government continued to work on its strategic objectives:

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35 For example, flexible utilization standards, removing burnt timber out of the waterbed, easier appraisal of right-of-way timber, and including timber sale licences in stumpage calculations.

36 For example, providing standardized planning template/prototype, new woodlot licence regulations that moved toward a more results-based regulatory framework, and streamlining the permits.

37 The bill system was adjusted to recognize the seasonal natural logging in BC through monthly payment plan, deferred stumpage payment, a field scales, easier appraisal and billing procedures for timber removed from right-of-way.

38 For example, the reduced cruising in low value stands, and the allowable thresholds for waste and residue.

increasing the fibre flow to ensure an adequate timber supply, participating and supporting the Jobs and Timer Accord, EFMPPs, and IFPAs to sustain employment, and streamlining the *Code* to reduce cost burden.

3.2.7 Cost Driver Initiative

Entering the fiscal year of 1999/2000, the BC Ministry of Forests initiated a province-wide Cost Driver Initiative (CDI), hoping to further reduce delivered wood costs while maintaining the *Code*'s environmental standards (BC Ministry of Environment, Lands and Parks Annual Report 2001- Fiscal years 1999/2000 and 2000/2001). The CDI was another partnership agreement between the BC Ministry of Forests, other resource agencies and the forest industry. In addition to its main goals, the CDI attempted to create a working environment in which objectives of timber harvesting, forest management, and environmental protection were balanced and managed cost-effectively.[39]

3.2.8 Landscape Level Wildlife Protection

In February 1999, the BC government released an *Identified Wildlife Management Strategy*, which was jointly announced by Minister of Environment, Lands and Parks Cathy McGregor and Minister of Forests David Zirnhelt (BC Forest Practices Board 1999; BC Ministry of Environment, Lands and Parks and BC Ministry of Forests 1999). Under the Strategy, species most at risk from forest activities were identified, and a process was created for establishing habitat areas for the identified wildlife (BC Ministry of Environment, Lands and Parks 1996, Preface; BC Ministry of Environment, Lands and Parks and BC Ministry of Forests 1999). Also, in March 25, 1999, urged by the Forest Practices Board (BC Forest Practices Board 1999), the government released the *Landscape Unit Planning Guide* and *Wildlife Tree Policy* as a coarse filter mechanism for conserving wildlife tree dependent species' habitat.[40]

Forests Minister David Zirnhelt considered the establishment of stand- and landscape- level land use goals a step toward a performance-based approach (BC Hansard 1999, 22 June, 16(9): 13896). But, concerned with the continuing economic downturns of the forest industry, Zirnhelt reiterated the timber supply impact caps established earlier and limited the impact of these constraints on timber supply to be no more than 4.1 percent (BC Hansard 1999, 22 June, 16(9): 13901), and suggested for a need to restructure the forest industry to make its operation more cost effective (BC Ministry of Forests 1999b).

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[39] BC Ministry of Forests (2001c) Strategic Results; also see BC Hansard (1999, 17 June, 16(5): 13777) for Forest Minister's talk about the process and focus of the *Cost Driver Initiative.*

[40] The *Landscape Unit Planning Guide* and *Wildlife Tree Policy* provided directions and advice on the amount of old-growth and the number of wildlife trees to conserve within the province's various forested ecological zones.

3.2.9 Forest Policy Review

Around 1998-1999, to identify the underlying issues, shared values, and potential long term solutions for managing BC's public forests, Forests Minister David Zirnhelt introduced a forest policy review program entitled *The Working Forest – Directions for the Future.*[41] The program addressed issues of land, forest industry and public stewardship, and the challenge confronting the government in making sure that the public derived the maximum economic, environmental and social benefits from the BC forests. Upon completing regional input from community workshops, the program chair Garry Wouters offered a list of recommendations for each set of the key issues (i.e., the land, the forest industry, and the public stewardship) (Wouters 2000, Executive Summary).

Consequently, Wouters' policy advice included piloting new ways to implement the *Code* to ensure that high environmental standards would be maintained and costs of forest operations would be reduced. It also urged better utilizing the resource by ensuring the right log going to the right mill. These suggestions once again illustrated the then policy agenda: seeking to reduce costs and increase efficiency, while maintaining environmental standards.

3.2.10 Premier's Cariboo Economic Summit

One of the main suggestions coming out of the policy discussions surrounding the *Code* framework was the idea of testing a results-based regulatory approach.[42] In May 1999, Premier Glen Clark announced in the Cariboo Economic Summit that pilot projects could be tested for improved regulatory framework for forest practices (BC Ministry of Forests 1999c). The concept of testing different regulatory frameworks was advocated by the forest industry at the summit; community interests were also lining up behind the industry. Forest companies voiced concerns for their economic interests, while communities were worried about their downward tax base and shrunken employment prospect; together they asked the government to think about finding a more cost effective way to achieve sustainable use of BC forests.[43]

The government was under ongoing pressure to change forest practices policy. Some even directly alluded to the government: "you had a prescriptive *Code*, we can get you to the same end points; we can get very good outcomes on the land, and we can give you good forestry outcomes without the heavy hand of

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41 BC Ministry of Forests, *The Working Forest – Directions for the Future*, available at http://web.archive.org/web/20010723073603/www.for.gov.bc.ca/pab/pc/review/heritage.htm, access 31 January, 2007

42 Personal communications with interviewees - see Appendix I under the general coding categories of 'Rationale of Part 10.1' and 'Why results-based?'

43 Personal communications with former senior officials of the BC Ministry of Forests

government."[44] A then senior official of the BC Ministry of Forests suggested that, rather than throwing away the whole *Code*, the government could do an experiment to gain a better understanding.[45] The senior official recommended that some forest companies be exempted from part of the *Code*'s requirements and "let people put their money where their mouth is" through testing results-based approaches. Whether or not public interest could be met in ways different than the *Code* statute would be examined through results-based (or performance-based) pilot projects.[46]

Following the summit, a team of some 30 people[47] representing diverse interests gathered in a workshop in June 1999 to consider what a results-based regime would look like. They debated how the new regime would appear and devised the crucial components for a results-based regime, and produced a draft Part 10.1 that would allow the establishment of the results-based code pilot projects.[48]

3.2.11 The Legislation of Part 10.1

In June 1999, Part 10.1 was added to the *Code* through the *Forests Statutes Amendment Act* (Bill 82) to deliver the Premier's commitment at the Cariboo Economic Summit. The legislation allowed pilot projects to experiment improved forest practices regulatory framework (BC Hansard 1999).

The three essential conditions for Part 10.1 pilot projects included 1) public review and comment, 2) equivalency to the level of resource and environmental protection under the *Code***,** and 3) monitoring and evaluation (BC Hansard 1999, 14277). The government stressed its commitment to maintaining environmental standards (BC Ministry of Forests 1999c). The opposition party was in favor of moving toward a results-based approach, and supported Part 10.1 for greater flexibility and accountability (BC Hansard 1999, 14277). The forest industry also backed such a new policy that would afford latitude in forest operations but still meet economic, social and environmental objectives (BC Ministry of Forests 1999c). Some environmental groups found the new direction a positive move that would explore ways to meet standards of the *Code* in a more accommodating environment, while also anticipating a wider participation of other forest users (e.g., the wilderness tourism community) in the new policy program (BC Ministry of Forests 1999c).

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44 Personal communication with the former senior official of the BC Ministry of Forests

45 Ibid.

46 Ibid.

47 The meeting participants were led by then senior government officials (personal communication with an informant involved in that workshop meeting), who knew that the biggest issue would be the environmental considerations. It then began the negotiation between BC Environmental Network (BCEN) and the government. As a result, BCEN listed a number of things as conditions to the pilot projects. One of the conditions was that the pilot regulation needs to have landscape level planning and address riparian protection (personal communication with an industry representative participating in the Fort St John Pilot Project).

48 Personal communication with an informant involved in the workshop meeting

For prudence, Part 10.1 specified that the total allowable annual cut (AAC) coming under the Part 10.1 pilot project(s) in a region may not exceed 10 per cent of the region's allowable annual cut (BC Hansard 1999, 4386), and the operations of the pilot project(s) would need to provide "at least the equivalent protection for forest resources and resource features" as that provided by the *Code*. The pilot project(s) would also have to be consistent with the *Code*'s goal of balancing forest values and economic, social and cultural needs of British Columbians (BC Ministry of Forests, 2001d). Moreover, the Forest Practices Board would retain its authority to audit forest practices of each pilot project.

Subsequent to the Part 10.1 legislation, pilot project proposals were submitted, reviewed, and, for some of them, approved; a few of them were carried forward even when the results-based *Forests and Range Practice Act* (FRPA) replaced the rule-based *Forest Practices Code* in 2004. The next chapter will provide an overview of the Part 10.1 legislation and its pilot projects.

3.3 Summary

In the 1990s, forest policy in BC evolved from the Harcourt government's concentration on the prescriptive plans and standards to the Clark government's focus on mitigating strategies that would alleviate the undesirable economic impacts of the increased regulations. Generally, BC forest companies felt the cost burden of the *Code* since the mid 1990s. Some specific policy initiatives, together with the unfavorable market effects (e.g., poor pulp prices, the softwood lumber agreement, the Asian economic crisis), were more or less linked to the BC forest industry's economic difficulties. In particular, the Protected Areas Strategy (PAS, 1993), which added constraints on timber supply through designation of protected areas, the Forest Renewal BC (FRBC 1994), which led to increases in stumpage, and most notably the *Code* (1995), which instituted extensive and prescriptive rules on planning and operations, were all thought to contribute to the sector's economic problems in the era of Premier Glen Clark.

Major policy issues the Clark government encountered included the limitations to timber supply, the lack of incentive and flexibility for investment and innovation, the increased delivered wood costs, and the displacement of forest workers in the forest resource communities. Specifically, forest companies accused the *Code* of inflating the delivered wood costs. Their concerns were further coupled with community instability, appeals to politicians, and market constraints.

In an effort to address the social and economic difficulties, Premier Glen Clark chose to adhere to the *Code's* principal framework, but he also, entered into the Jobs and Timber Accord with the forest industry, tested ways of enhanced forest management, provided stumpage benefits, and streamlined the *Code*. Meanwhile, the Clark government adopted the concepts of landscape units and professional reliance and

professional accountability as a conceptual basis for the results-based forest practices regulatory framework. Subsequently, Part 10.1 was added to the *Code* as a solution to address the disadvantageous effects of the *Code*. A results-based regulatory system was emerging and awaiting experimentation. Under the experimental framework, detailed planning and rigid operational requirements would be replaced by a series of strategies and performance targets that entrusted industry professionals with forest planning and field operations.

Entering the 2000s, the NDP government (led by Dan Miller and Ujjal Dosanjh) continued to introduce changes to forest policies. The BC Liberal Party won the election and took over power in mid-2001. The new government introduced the *Forestry Revitalization Act* and the new *Forest and Range Practices Act (the FRPA)*, which further extended the scale of the results-based regulatory system to the whole province.

The policy efforts presented in this chapter exemplified BC government's persistent efforts at promoting the growth of the BC forestry industry while striving to maintain high environmental standards. The governments were likely motivated by some combination of two driving factors. One may see the decade long history of BC forest policy as a learning process that has been based on a fair amount of collective understanding regarding better ways to manage forests. Alternatively, the dynamics of political power among policy actors might have also led to the policy path as depicted here. It appears both factors carry weight, as argued by the scholarly work reviewed in previous chapter.

This study will focus on the policy decisions of the legislation of Part 10.1 and one of the Part 10.1 pilot projects, the Fort St. John Pilot Project (FSJPP), because both policy decisions exemplify a policy change in BC forest sector in the late 1990s. These policy decisions also likely helped forge the full scale results-based regulatory system - the *Forests and Range Practices Act* (the *FRPA*) - in the early 2000s. An overview of the Part 10.1 legislation, including its policy process, policy content and policy change, as well as the pilot projects proposed under Part 10.1 will be provided in the next chapter. Similarly, an overview for the Fort St. John Pilot Project and its regional forest policy background will be detailed in Chapters Five and Six. Chapters Seven and Eight will discuss how the two driving forces – learning and power struggle - explain policy change and which theoretical framework better matches the policy decisions.

Chapter Four

The Results-Based Code Pilot Project Policy

This chapter provides an account of the legislation authorizing pilot projects under the *Forest Practices Code*, including its policy process, policy content, and policy change, along with the pilot projects proposed under it. This account serves as a narrative for one of the two case studies in this project. The chapter concludes with an outline of policy effects of the Part 10.1 legislation. A comment versus response table that recaps the areas of concern is also affixed for detailed background.

4.1 Policy Process

Despite the fact that stumpage increases were shown to be a more important driver behind the cost increases, the added $12/m^3 of *Code*-related costs was regarded as significant in an industry with small profit margins (Hoberg 2001b, 79). Therefore, even with the BC government's efforts in the late 90's to mitigate the adverse social-economic effect, allegations about the *Code's* economic impact continued. The forest industry extended its search for a greater recognition of, and reliance on, professional accountability of foresters (BC Professional Accountability Task Force 1996). The industry groups also argued that more desirable forestry outcomes could be achieved through an alternative regulatory approach. In addition, there were calls from within the government which echoed the industry's plea for a change (personal communications with the BC Ministry of Forests staff members). Sources that likely prompted such internal state discussions included the recommendations of the 1996 Operational Planning Review Panel, the Garry Wouters' advice resulting from the 1998-9 Forest Policy Review, and concern over the coniferous bias caused by the silviculture policy legacies.[1] Other than the existing policy programs, new ideas, recommendations, and comments were channeled to the policy-making system that dominated the issue identification in the late 1990s for policy change.

In July 1999, the BC government approved a further change to the *Code*, conceding that sustainable forest management might be achieved with an alternative regulatory approach, and that the existing rule- and planning- based *Code* was not necessarily the best option. The 1999 Bill 82 added Part 10.1 (Sections 221.1

[1] In BC, coniferous species have been traditionally the preferred tree species for industrial harvesting. The province's silviculture policy and the reforestation standards pertinent to it were developed to ensure the regeneration of the coniferous species in the public forest lands. The plantation mentality that requires forest companies to grow coniferous sometimes prohibits the regeneration of other forest types. It could potentially alter the character of the natural forests, causing loss in ecological, cultural, and economic values. (Personal communications with university professors and staff members of the BC Ministry of Forests)

to 221.3 of the *Code*) to the already streamlined *Code* to allow pilot projects to test a different forest practices regulatory framework. With the passing of Part 10.1, the BC Lieutenant Governor in Council was able to order, by regulation, that specific provisions pertaining to the *Code* and the *Code*'s regulations would not apply to the participants of the Part 10.1 pilot projects. The participants could include a district manager or the government, in relation to the Small Business Forest Enterprise Program (later the BC Timber Sales), or the holders of an agreement under the *Forest Act* or the *Range Act*. As opposed to the prescriptive *Code*, the Part 10.1 legislation offered the BC forest sector an avenue to experiment with an alternative forest practices regulatory framework.

4.1.1 Agenda Setting

The official genesis of the Part 10.1 policy was the Premier's Cariboo Economic Summit. In May 1999, the BC Premier Glen Clark announced at the Cariboo Economic Summit that pilot projects would be tested to improve forest practices regulatory framework (BC Ministry of Forests 1999c). At the summit forest industry pushed hard for a more flexible model which would allow efficiency and innovation. Forest companies contended that, under the *Code*, they had to start their planning process years before they could cut a tree down.[2] At the same time, the government hoped for a more effective approach, because the *Code* was resource-intensive[3] and caused unintended outcomes (e.g., significant delay in plan approval).[4] Forest professionals also criticized the *Code* for limiting their ability to practice.[5]

A former senior official of the BC Ministry of Forests, who was present at the Cariboo Economic Summit, has emphasized the importance of experience-based policy change and explained the rationale of recommending Part 10.1 as a policy solution at the summit:

> "If we are going to change regulations, to change statute, it would be preferable for policy maker to gain some experience so that as we move forward and make change we do it on

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[2] It could be because of the long delay in the plan review and approval process under the Code regime. In addition, during those years market factors changed dramatically, forest tenure holders thought they were going to need a lot of particular species (e.g., hemlock) and they planned for that. But, by the time they could start cutting trees down, the market wanted other species (e.g., Douglas fir). For that reason, both the government and the industry needed to find a way which was quick and easier to work through. (Personal communication with a BC Ministry of Forests staff member)

[3] District staffers complained that they spent too much time in the office processing paperwork and not enough time out in the field monitoring what's happened. (Personal communication)

[4] Personal communication with a BC Ministry of Forests staff member; see Appendix I under the category of 'Replace SP with SLP.'

[5] See BC Professional Accountability Task Force (1996, Summary) and Appendix I of this dissertation under the category of 'Why results-based?'; also personal communication with a representative of the professional association

> the base of experience rather than a popular argument. We want to make sure that we do that in a way that meets the test of good public administration, has checks and balances, with the same or higher levels of environmental standards."[6]

The former senior government official (personal communication) also recalled the tense political circumstances at the time:

> "The solution that emerged was a formulation of Part 10.1 added into the *Code*. The concept of testing different regulatory framework was advocated by forest industry at the Cariboo Economic Summit. Community interests were lining up behind the industry. Together they were concerned about whether government had added too much cost burden through its enactment of the *Forest Practices Code of British Columbia Act.* [Forest industry and community interests] argued that it was affecting the viability of the industry and the social and economic conditions of the communities. Faced with the process-oriented, planning-based *Forest Practices Code*, industries voiced concerns for their economic interests; communities voiced concerns about their downward tax base and shrunken employment prospect. They asked the government to think about finding a more cost effective way of getting to its end goals."

It was from that very discussion at the economic summit that the government came up with the idea of exempting the participating forest companies from parts of the *Code* through Part 10.1. The policy model was that if the government and industry partners could enter into a regulatory arrangement, the government could allow the participants to be free of various provisions that came with the *Code* and other specified legislation. This exemption could only be done for the purpose of testing different and equal to or better ways of regulating forest practices. The policy was designed as an experiment to gain understanding about the potential of a results-based framework to avoid running a risk of not meeting the public interests, as the former senior government official has recollected:

> "We enabled within [Part 10.1] the ability to do some positive aggressive experimentation, and this was in order to test whether or not public interest could be met in ways that were different than the current statute and gave people who were saying this is wrong the opportunity to prove what was better and prove that they would still take fair care of the environment that they would still illustrate good forest practices and would still keep a good balance,…..I did want to make sure that we did that in a way that I would say met the test of good public administration. We still had checks & balances, and people were still forced

[6] Personal communication with a former senior government official of BC Ministry of Forests

> to be responsible to the public for managing the public resources." (Personal communication with the former senior official of the BC Ministry of Forests)

4.1.2 Policy Formulation

The process of formulating Part 10.1 then began in a workshop that followed the Premier's Cariboo Economic Summit. A team of some 30 individuals, representing diverse interests, deliberated over what a results-based system would look like. The resultant draft Part 10.1 outlined the conditions for agreeing to any Part 10.1 pilot projects, making sure that the environmental standards provided under the *Code* would not be lowered.[7]

As senior officials of the BC Ministry of Forests foresaw environmental concerns over the Part 10.1 policy proposal,[8] the government began to consult with environmental groups. Representatives of environmental groups articulated their view on the draft Part 10.1, and requested to put landscape level planning and riparian protection as prerequisites for each Part 10.1 pilot project.[9] Accordingly, environmental groups played a crucial role in assuring the public of the adequacy of Part 10.1.[10]

As noted in the previous chapter, prior to the Part 10.1 legislation, the forest industry and forest professionals had been campaigning for professional reliance and professional accountability and the results-based regulatory alternative. By the time Part 10.1 was being developed, these concepts had become recognized in the policy community. As might be expected, they were incorporated into the draft Part 10.1. Subsequently, the government decided that the environmental and resource stewardship could be attained without having to employ a prescriptive system like the *Code*.[11]

The government introduced Part 10.1 legislation (Bill 82) to the BC Legislature Assembly in June 1999, and in July 1999, Part 10.1 was enacted and viewed as a significant breakthrough. It was a move from a rigid regulatory framework to one that embraced flexibility and professional reliance and professional accountability, with a focus on the end results. Upon enabling the legislation, the BC Premier Glen Clark explained (BC Ministry of Forests 1999c):

> "Participants at the premier's economic summit in the Cariboo wanted a way to test different methods of applying the *Code*, with less administration but with the same or

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7 Personal communication with informants who were involved in the workshop

8 Personal communication with a former senior government official of the BC Ministry of Forests

9 Personal communication with an industrial representative who was participating in the Fort St. John Pilot Project

10 Personal communication with a former senior government official of the BC Ministry of Forests

11 Personal communication with a BC Ministry of Forests staff member, also see above the former senior Ministry of Forests official's recollection on the rationale of proposing Part 10.1

higher levels of environmental standards……We are delivering on one of the key recommendations of the summit - enabling legislation for pilot projects across BC, starting in the Cariboo."

4.1.3 Decision Making

The draft legislation emphasized the enactment of the Cabinet's power to exempt the participating parties from specific provisions of the *Code*, the *Forest Act*, or the *Range Act*, and any regulations under these acts for the purpose of experimenting improved forest practices regulatory framework. Specifically, the experimentation could include a regulatory prototype that brought about desired results rather than prescribed trivial rules. The two indispensable conditions for every Part 10.1 pilot project, as the Forests Minister described to the Legislative Assembly, would be the public review and comment and the equal level of protection as that of the *Code* (BC Hansard 1999, 14277).

The government asserted that, with the passing of Part 10.1, the Cabinet would approve a pilot project and its regulation under Part 10.1 if it could meet the following criteria:[12]

1) The proposed project had been subject to public review and comment.
2) A summary of the comments and actions that were taken respecting those comments had been submitted to the ministers.
3) The proposed project would provide at least the equivalent protection for forest resources and resource features as that provided by the *Code.*
4) The proposed project would be consistent with the preamble to the *Code* (as shown below).
5) The pilot project regulation would –
    a. adequately provide for public review and comment regarding forests practices to be carried out under the proposed pilot project;
    b. adequately provide for monitoring and evaluation of the proposed project;
    c. maintain the role of the Forest Practices Board as set out in the *Code*, and
    d. provide public access to planning documents and assessments used in the project and records which were required to be prepared for the project
6) All pilot projects in a forest region would not comprise more than 10% of the total allowable annual cut (AAC) in effect in that forest region.
7) A pilot project could only be established in an area that was subject to a higher level plan or a pilot project regulation for balancing competing values and interests.
8) A local public advisory committee would be established to review comments made by the public and actions taken or proposed by the project proponents, and to report to the ministers as to the public acceptability of the proposed project.

[12] A copy of Part 10.1 (Section 221.1 - pilot projects of the *Code*) is attached in Appendix E

9) Participants of the project would report annually to the ministers on the pilot project, and the ministers would make the reports publicly available.

The Preamble to the *Code* stressed British Columbians' desire for sustainable use of the forests which they hold in trust for future generations. It includes the following criteria:[13]

(a) managing forests to meet present needs without compromising the needs of future generations,
(a) providing stewardship of forests based on respect for the land,
(a) balancing economic, productive, spiritual, ecological and recreational values of forests to meet the economic, social and cultural needs of peoples and communities, including First Nations,
(a) conserving biological diversity, soil, water, fish, wildlife, scenic diversity and other forest resources, and
(a) restoring damaged ecologies

In summary, Part 10.1 was to test alternative and better regulatory frameworks for forest practices.[14] The Part 10.1 legislation encouraged early and ongoing public participation and focused on strategic planning. It upheld sustainable use of forest and environmental protection, offered flexibility, and shifted attention to field results.[15]

Forest planning and operations under each Part 10.1 pilot project were required to be consistent with the higher level plans or complying with regulations that balanced competing values and interests. In addition, they needed to balance their private and public interests and provide adequate level of public involvement and performance evaluation. Most crucial was the equivalent or higher level of forest management.[16] Furthermore, under each Part 10.1 pilot project a local public advisory committee could be established to review comments made by the public, and to report to the government on the public's satisfaction with the proposed pilot project.

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[13] Available at http://www.for.gov.bc.ca/tasb/legsregs/archive/fpc/fpcact/contfpc.htm#preamble, accessed 24 November, 2007.

[14] Section 221.1 (1), (2) of the *Code*

[15] See BC Ministry of Forests Annual Performance Report 2000/01, BC Ministry of Forests (2001d), and JSC Letter (dated 31 March, 2000, available at http://www.for.gov.bc.ca/hfp/rbpilot/bulkley.htm). Accordingly, any policy issue that was not directly related to regulating forest practices (e.g., liability for forest roads or timber appraisal) was however not the intent of Part 10.1.

[16] See BC Ministry of Forests (1999c) for statements of the Premier Glen Clark on the delivery of Part 10.1.

4.1.4 Implementation

Subsequent to the passing of Part 10.1, to implement the Part 10.1 policy, the Ministry of Forests took charge of the review and approval of the Part 10.1 pilot projects. The inter-ministerial Forest Practices Code Joint Steering Committee (JSC) held meetings with other resource agencies, environmental groups, and the forest industry, to invite proposal of results-based code pilot projects. Part 10.1 became the focal avenue for advocating change and exploring innovative forest resource management; new ideas were encouraged to be tested out within the Part 10.1 framework.

In facilitating the implementation of Part 10.1, the Ministry of Forests created the post of project manager. The manager received strategic advice from the JSC and its Joint Management Committee (JMC), oversaw the Part 10.1 pilot projects, and coordinated the communication and consultation concerning the implementation of Part 10.1 at the provincial level. The JSC, which was comprised of senior officials from resource agencies who had the authority to sign off strategic and operational plans under the *Code*, identified a list of criteria for selecting project proposals.[17] The JMC involved specialists from a range of fields to ensure the quality of the Part 10.1 pilot projects; each draft pilot proposal would be reviewed in detail by the JMC.[18] These governmental examination efforts were followed by consultations with stakeholders such as environmental groups, forest industry, Forest Practices Board, and First Nations (BC Ministry of Forests Annual Performance Report 2000/01).

Meanwhile, the Ministry of Forests received a number of initial expressions of interest across the province. Five proposals reached the planning stage: Weyerhaeuser Canada Ltd. (Stillwater Division), Fort St. John licensees (led by Canfor), Cariboo Lumber Manufacturer's Association (CLMA), Cariboo Woodlot Association (CWA), and Riverside Forest Products Ltd. These Part 10.1 pilot projects were proposed in an effort to meet the Part 10.1 criteria, reduce the administrative "red tape," and improve the efficiency of forest planning and operations.

While these Part 10.1 pilot proposals all strived to make the *Code* more efficient without compromising the environmental standards, each differed more or less in various aspects. The variation ranged from the characters of the proponents' forest tenures, the area and allowable annual cut (AAC) involved, the presence of higher level plan, to the scale of regulatory streamlining and focus of innovation. The projects

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[17] BC Ministry of Forests, meeting minutes of the Joint Steering Committee (JSC)

[18] Personal communication with a former project manager at BC Ministry of Forests for the Part 10.1 pilot projects

also diverged in their working relationships with local communities, First Nations, environmental groups, and professionals.[19]

4.2 The Part 10.1 Pilot Projects

This section provides an overview of pilot projects proposed under Part 10.1.

4.2.1 The Stillwater Pilot Project

The proposal submitted by the Weyerhaeuser's Stillwater Division (the Tree Farm Licence 39) in the Sunshine Coast Forest District was the first to receive Cabinet approval. It covered 180,000 hectares on Cutblock One of Tree Farm License (TFL) 39 near Powell River with an allowable annual cut (AAC) of 445,000m^3 (approximately 2% of the regional AAC). A community advisory group, the Association of BC Professional Foresters (ABCPF), the BC Environmental Network (BCEN), and the Sierra Legal Defense Fund reviewed the proposal prior to Cabinet review and approval. The consequent *Stillwater Pilot Project Regulation* (BC Reg. 96/01 effective April 1, 2001) identified resource values and goals that resemble national and international criteria for sustainable forest management for the Stillwater area, and provided guidance for its Forest Stewardship Plan (FSP). Measurable targets were also specified for each resource value and tied into components of forest management certifications (i.e., ISO 14001 and CSA SFM).[20]

The *Stillwater Pilot Project Regulation* authorized a single Forest Stewardship Plan (FSP), which replaced four operational plans in the pilot areas, and linked the project area's landscape units with the biodiversity emphasis options denoted by the government. The project's FSP later became a model for other forest tenure holders when they were preparing their forest stewardship plans under the new *Forest and Range Practices Act* (the *FRPA*) (Innes 2003, 355).

4.2.2 The Fort St. John Pilot Project

The Fort St. John Pilot Project (FSJPP), one of the case studies in this project, established a partnership among volume-based licensees and the Small Business Forest Enterprise Program (now the BCTS). The project covered 4.1 million hectares of Crown land in the Fort St. John Timber Supply Area, also tied in the Canadian Standards Association's Sustainable Forest Management (CSA SFM) certification (Cashore, Auld, and Newsom, 2004), and had its own pilot project regulation. The FSJPP is currently in its eighth

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[19] A collection of the Forest Practices Code pilot projects can be viewed on the BC Ministry of Forests Range website at http://www.for.gov.bc.ca/hfp/rbpilot/index.htm.

[20] See BC Ministry of Forests and Range's record on the Stillwater Pilot Project, http:// www.for.gov.bc.ca/hfp/rbpilot/stillwater.htm.

year of implementation since its approval in December 2001. The project will be analyzed in detail in the later chapters.

4.2.3 The Cariboo Licences Pilot Project

The Cariboo Licences Pilot Project involved Ainsworth Lumber Co. Ltd., Weldwood of Canada Ltd., West Fraser Mills Ltd., Slocan Forest Products Ltd., Tolko Industries Ltd., Riverside Forest Products Ltd. and Lignum Ltd. Similar to the Stillwater Pilot Project, these participating volume-based forest tenure holders replaced their annual Forest Development Plans with a general strategic five-year Forest Stewardship Plan (FSP). The FSP was based on the objectives and targets contained in the Cariboo-Chilcotin Land Use Plan (CCLUP). The intention was to decrease administrative costs and direct managing effort to end results. The Cariboo FSP contained no site level information or prescriptions specific to blocks or stands. With its FSP, the participating forest companies attained flexibility in terms of road location and harvesting development between years within the FSP timeframe.[21] Site level plans continued to be submitted to the Ministry of Forests, but merely for reference purpose.

4.2.4 The Cariboo Woodlot Pilot Project

In late 1999, the Cariboo Woodlot Association (CWA), in cooperation with the South Cariboo & Quesnel Woodlot Association, submitted a Part 10.1 pilot project proposal, outlining a Woodlot Plan and a draft pilot regulation. The intent was to more efficiently manage forest resources on a woodlot. It proposed a market pricing stumpage system, an area-based cut control procedure (e.g., limiting the number of hectares that could be harvested annually), and a silviculture cost sharing arrangement.[22] As long as their actions were consistent with the strategies and objectives outlined in the Woodlot Plan, the CWA members expected to gain latitude in forest management under this pilot project (Innes 2003, 354).

4.2.5 The Riverside (TFL 49) Pilot Project

On March 5, 2002, the draft *TFL 49 Pilot Project Regulation* was forwarded to the British Columbia Environmental Network (BCEN). The project proponent - the Riverside Forest Products Ltd. (TFL 49) - was an area-based forest tenure holder in Kelowna, managing 145,000 hectare forest area on the west side of Okanagan Lake in the Southern Interior. With a strong commitment to forest land stewardship, the proponent drew up an Ecological Stewardship Plan (ESP) based on the objectives and targets identified in

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21 See BC Ministry of Forests (2001d); BC Ministry of Forests and Range's Cariboo Forest Licensees' proposal, available at http://www.for.gov.bc.ca/hfp/rbpilot/caribooresultscode.pdf

22 See BC Ministry of Forests (2001d); BC Ministry of Forests and Range's Cariboo Woodlot Association's Results Based Code Preliminary Proposal, available at http:// www.for.gov.be.ca/hfp/rbpilot/woodlots_cariboo.htm

the Okanagan-Shuswap Land and Resource Management Plan (the OS LRMP). The ESP replaced the tenure holder's Forest Development Plan which was required by the *Code* and *Forest Act.* The ESP also field-tested a dynamic ecosystem-based resource management model, which explored its potential for managing all forest resources - timber or non-timber - in a cost effective way.

The ESP of the TFL 49 pilot project reduced the number, size, and complexity of forest operation plans and streamlined the governmental review processes, while striving to maintain and enhance the productivity of the land base.[23] The Riverside TFL 49 Pilot Project formed an Advisory Panel with diverse expertise, including the Mayor of the community, and developed new forest management techniques related to silviculture, riparian protection, and fish habitat protection. Concerning silviculture, the proponent developed an alternative reforestation evaluation technique (also called a multi-block level), which assessed reforestation performance at landscape level. The technique allowed silviculturalists the flexibility to achieve desired outcomes at the lowest cost. The new reforestation evaluation technique (or the multi-block approach) highlighted the link between silviculture activities and future yields for Lodgepole pine and interior Spruce, and provided advantages which the conventional assessment method did not afford.[24]

The draft regulation of the TFL 49 pilot project established provisions for professional foresters to exercise judgment and accountability in developing strategies and prescriptions for harvesting and silviculture.[25] In addition, the project participant no longer needed to obtain a cutting permit for each cutblock, as the approval of the ESP would grant such authorities. The project also initiated a mending formula to allow for another review and halting off operation for the affected area should an aboriginal interest or other issues arise. However, Tolko Industries Ltd. acquired Riverside Forest Products Ltd. at a later time and decided to end the project.[26]

4.2.6 The Bulkley Pilot Project

In February 2002, the West Fraser Mills Ltd, Skeena Cellulose Inc., the Moricetown Band Council, and the Small Business Forest Enterprise Program (now BCTS) jointly proposed the Bulkley Pilot Project. The proposed project covered the entire 736,000 hectares of the Bulkley Timber Supply Area (TSA), which had an AAC of 895,000m^3. The proponents put together a Landscape Unit Plan as a common District Manager Policy, a District Development Plan (DDP), or a Management Plan (MP), so that their Forest Development Plans could be streamlined. The DDP (or MP) was developed based on the Bulkley Land and Resources

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23 See BC Ministry of Forests and Range's Riverside-Kelowna FPC Pilot Project website, at http://www.for.gov.bc.ca/hfp/rbpilot/riverside_kelowna.htm

24 Ibid., and personal communication with an informant in October 2006

25 BC Ministry of Forests and Range's Riverside-Kelowna FPC Pilot Project website, at http://www.for.gov.bc.ca/hfp/rbpilot/riverside_kelowna.htm

26 Personal communication with a former project manager at the Ministry of Forests for Part 10.1 pilot projects

Management Plan that was formulated by a Community Resources Board, and became a strategic plan that contained landscape level information and a coordination mechanism. The project proponents also planned to adopt adaptive management and involve a joint-venture with First Nations.[27]

4.2.7 Other Pilot Proposals

Lastly, there were other pilot proposals which did not achieve full development. For example, the Isaak Pilot Project of TFL 57 in Clayoquot Sound looked at a forest management plan that was consistent with the Clayoquot Sound Scientific Panel recommendations (BC Ministry of Forests, 2001d). West Fraser was developing a pilot proposal aiming at maximizing efficiency through streamlining planning and adaptive management process, while West Chilcotin Forest Products and the District Manager of Chilcotin Forest District thought of adopting landscape level planning as an alternative (Stahl 2000; BC Ministry of Forests 2000d).

To sum up, common themes among these Part 10.1 pilot project proposals included: 1) a tendency to specify objectives and strategies which were accompanied by criteria and indicators for measuring performance; 2) an inclination to adopt strategic and landscape level planning; 3) incorporating certification standards, especially the CSA-SFM, into the management framework; and 4) simplifying the administration of site level planning and operations.[28]

The remainder of this chapter provides the policy content and policy change of the Part 10.1 legislation.

4.3 Policy Content of Part 10.1

A complete assembling of the Part 10.1 policy content would require extensive study on each Part 10.1 pilot project. Due to resource and time constraints, this section provides an outline of the Part 10.1 policy content.

Structurally, Part 10.1 had two layers of regulatory authorities: the Bill 82 passed by the BC legislature and a binding regulation issued through Order-In-Council. Functionally, a Part 10.1 pilot project was a trial of results-based forest management. It made use of the *Code*'s fundamental values, public involvement, the concepts of professional reliance and professional accountability and landscape level planning, and a monitoring and evaluation framework, to develop and test a results-based model.

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[27] See BC Ministry of Forests (2001d) and BC Ministry of Forests and Range's Bulkley Forest Practices Code Pilot Project website, at http: www.for.gov.be.ca.hfp/rbpilot/bulkley.htm

[28] Personal communication with a former project manager at BC Ministry of Forests for Part 10.1 pilot projects; also see Stahl (2000) and BC Ministry of Forests (2000c)

To protect public interests, the policy required each pilot project regulation to cover four components: (1) opportunities and procedures for public review and comment on the forest practices to be carried out under the proposed pilot project, (2) monitoring and evaluation criteria of the proposed pilot project, (3) continuation of the Forest Practices Board's role as set out in the *Code*, and (4) public access to planning documents and assessments used in the proposed pilot project (Part 10.1 of the former *Code;* also see Section 4.1.3 above). It also required the pilot projects to provide public access to information and the same or higher level of environmental protection standards.

As mentioned in Section 4.1.2, upon consultation with BCEN, landscape level planning became part of the prerequisites for each Part 10.1 pilot project. Hence, a common item resulting from the Part 10.1 pilot projects was a results-based strategic plan[29] (also see Section 4.2.5 above). In general, the results-based strategic plan specified strategies and targets for specific forest resource values (e.g., timber, fish streams, and biodiversity). These strategies and performance targets addressed forest practice issues and outcomes with respect to concerned forest resource values at the broad landscape level. They then guided the planning and operations regarding each of the forest resource values. The strategic plan provided an opportunity to test innovative landscape level planning and forest practices that focused on results and resource values.

Another significant feature of the Part 10.1 pilot projects was the repealing of approval requirements for site level plans. The regulatory repealing offered an opportunity to improve administrative efficiency and business flexibility for both industry and government. The following sections exemplify how a Part 10.1 pilot project could address these policy contents and prerequisites.

4.3.1 Public Involvement

One of the prerequisites of Part 10.1 pilot projects was engaging the public and stakeholders through early and ongoing involvement in the planning process. Each pilot project was required to involve the public and stakeholders through a local community group (or public advisory committee, public advisor group), who defined the interests on the land and advised alternate ideas or data systems. The local community group formed under Part 10.1 could be a standing body (as opposed to a steering committee or a one-off consultation group), and would participate in the drafting of a Part 10.1 pilot project regulation and the subsequent project implementation and evaluation processes.[30]

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[29] Examples of strategic plans developed under the pilot project proposals include: 1) the Forest Stewardship Plan of the Cariboo Forest Licensees pilot project, 2) the Ecological Stewardship Plan of the Riverside TFL 49 Pilot Project, and 3) the Sustainable Forest Management Plan of the Fort St. John Pilot Project

[30] The formation of the local community group however could be cumbersome, bringing together multiple interests and a complex network of stakeholders, each carrying dissimilar perspectives and a disparate degree of political

Unlike under the *Code* regime, where the public had access to detailed and cutblock-level forest operation information, Part 10.1 shifted the focus of public oversight to strategic matters. As a result, the information type and specifications available to the pubic were altered accordingly. But, a Part 10.1 pilot project could choose to make available the operational and related assessment information (Canadian Forest Products Ltd. 2001, 15). To ensure adequate public oversight, several opportunities were provided under Part 10.1 for public involvement. First, the public could participate in the development of forest management objectives via the public/community group process. Second, the public could take part in the review and comment on the project's strategic plan (described below), its proposed amendments, and in the joint auditing process.[31] Third, the district manager of the Ministry of Forests had to be satisfied that public comments had been adequately addressed before issuing cutting permits.[32]

The avenue for public involvement was shifted from operational- and stand- level to strategic- and landscape- level planning and operation matters. In addition, the nature of involvement transformed from sporadic and individual events to regular and interactive group processes.

4.3.2 A Results-Based and Professional-Reliance Framework

Policy actors involved in Part 10.1 were required to focus on end values and pursued management goals and objectives. They were also supposed to espouse the emerging idea of professional reliance and professional accountability. Consequently, the pilot project participants were no longer required to obtain government approval for operational and site level plans (e.g., road plan, silviculture prescription, etc.), even though the participants still prepared those plans. The industry professionals prescribed for operational and site plans in accordance with their professional duties and local conditions, making sure that the implementation of those plans would provide adequate management and conservation for forest resources and resource features.

For example, among those Part 10.1 pilot projects, the approval of the Forest Development Plan was replaced by the approval of a *Dynamic Ecosystem Based Sustainable Total Resource Management Project* and a *Forest Stewardship Plan* in the case of the Riverside and Stillwater pilot project respectively. In the case of the Fort St. John Pilot Project (FSJPP), the participants consolidated their forest operational plans and put together one single *Forest Development Plan* (FDP) and a *Sustainable Forest Management Plan*

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resources. For that reason, the participants of a Part 10.1 pilot project would need to contend with uncertainty as to what kind of counsel would arise. (Personal communication with a senior government official)

31 See pilot project proponents' responses to BCEN's comments: Riverside's responses to Gage's (2002) comments and Stillwater's responses (on Nov. 14, 2000) to Brewster & Clogg's (2000) comments

32 Ibid.

(SFMP) for government approval. The FSJPP group also made public a *Forest Operations Schedule* (FOS) that contained information of cutblocks and roads for public review and comment.

4.3.3 Exemption from Parts of the Code's Provisions

The *Code* had specific practices requirements concerning fish habitats, wildlife values, and species at risk. It also had detailed rules for soil conservation, road engineering, timber harvesting, and forest regeneration (BC Ministry of Forests 1993b; BC Ministry of Forests 1994). Under the *Code* framework, the government had hands-on supervision responsibility. Thanks to the concept of professional reliance and professional accountability, the Part 10.1 policy was able to make "dis-applying" parts of the *Code* understandable and acceptable. Following the Part 10.1 legislation, the government could focus on the outcomes of forest practices and let the industry professionals oversee the work on the ground. Government officials from the Ministry of Forests and the Ministry of Water, Land, and Air Protection assessed whether the proposed strategies and measurable targets met the requirements of equivalent protection of forest resources and resource features as that provided under the *Code* and the *Code*'s regulations. However, as a general rule, no exemption from the *Code's* provisions could take place until a results-based strategic and landscape level plan was made official under the Part 10.1 framework.

4.3.4 Strategic and Landscape Level Planning

Under the Part 10.1 legislation, the approval system for forest planning under the pilot project regulations was trimmed. Only the strategic and landscape level stewardship plan and the cutting-permit process required government authorization.[33] Nonetheless, in addition to a strategic plan, participants were still required to make their operational information (including maps) available to the public. The maps needed to show both active and approved cutblocks and roads, proposed cutblocks and roads, as well as current and planned road deactivation and stand tending activities.

The content requirements of strategic planning were substantially different from those of a Forest Development Plan (FDP). Strategies and specific targets for resource management zones were typically delineated as the major content of a strategic and landscape level plan. This type of plan was prepared to address forest management issues and outcomes at the long term and the landscape level, and to guide the operational plans and performance evaluation of a Part 10.1 pilot project.

With mandatory internal and external monitoring and reporting, equivalent protection for forest resources and resource features and proper forest management were expected to be achieved by meeting the approved

[33] Following the recommendations of the BCEN, Part 10.1 policy required the approval of a landscape level plan (personal communication with a representative of Pilot Project participants)

targets. The objectives stated in the regional LRMP (or any other higher level plan or designation that was brought into force) provided the basis for target specification in the stewardship plan.

4.3.5 Site Level Planning

The Part 10.1 pilot project regulations permitted government officials to request site level plans, but not the authority to approve those plans. Accordingly, dis-applying the site level plan approval requirements as shown in Part 10.1 was considered a significant change in administrative rules. Because of this, the consistency between a site level plan and the corresponding strategic or landscape level stewardship plan would need to be safeguarded by the industry professionals, the audits as required by the regulation or conducted by the Forest Practices Board, and the compliance inspections of government agencies.[34]

4.3.6 Forest Practices

The industry professionals were assigned greater responsibility and accountability under the Part 10.1 framework. Without the government administration, operational or site level forest practices would fall back on registered professionals' discretion and oversight. Professionals together with pilot project participants' staffers and consultants became answerable for forest practices on the ground.

4. 4 Policy Changes

4.4.1 Policy Goals

The Part 10.1 policy puts forth nine criteria (see Section 4.1.3 above) for conducting a Part 10.1 pilot project. Upon meeting these principal criteria, administrative procedures of a Part 10.1 pilot project can be streamlined and made less burdensome. The intention was to let the forest companies and professional foresters have more autonomy in laying down a blueprint for forest planning and operations. Briefly, the regulatory focus shifts from procedure to results, in an effort to facilitate efficiency, conditional on the criteria as articulated in the Part 10.1 provisions.

[34] See, for example, Part 5 Division 2 of the Fort St. John Pilot Project Regulation 278/2001

4.4.2 Policy Instruments

The Part 10.1 legislation and those pilot project regulations passed under it formed the specific instruments and their settings of the Part 10.1 policy decision. Policy instruments employed in Part 10.1 were mostly related to the authority of the public, the government, and independent third party (e.g. the Forest Practices Board).

Public Review and Comment

Local community committees (or Public Advisory Groups) were formed to review and comment on Part 10.1 pilot project proposals, the draft pilot project regulations, and the subsequently developed strategic plans.

Government Review and Consultations

Each draft Part 10.1 pilot project proposal had to undergo the full review of the Joint Management Committee (JMC thereafter). In addition, the Forest Practices Code Joint Steering Committee (JSC) and its JMC (the same as the JMC which reviewed each Part 10.1 pilot projects) oversaw and coordinated the communications and consultations concerning the implementation of Part 10.1 pilot projects at the provincial level. Environmental groups, forest industry, other interest groups, and the Forest Practices Board were also consulted during the implementation process.[35]

Internal and External Audits and Reporting

The pilot project regulations required periodical internal audits and reporting on project progress and performance. In addition, the Forest Practices Board conducted audits to check whether the project fulfilled its goals and met the objectives it specified. As a result, a Forest Practices Board's (2007) audit report, which showed that the BCTS, being a participant of the Fort St. John Pilot Project, increased its level of management, evinced such commitments (Forest Practices Board 2007, 8).[36]

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[35] On the Fort St. John Pilot Project, for dealing with issues of First Nations, see Chapter 6 Sections 6.3.4, 6.4.1, and 6.4.2.1

[36] In its compliance audit of forest planning and practices of the British Columbia Timber Sales (BCTS) program and timber sale licence holders in the Fort St. John Pilot Project Area, the Forest Practices Board collected and utilized third-party audit information to assist the assessment, and concluded that "the operational planning; timber harvesting; silviculture; and road construction, maintenance and deactivation carried out by BCTS and timber sale licence holders in the Fort St. John Code pilot Project area for the period April 1 2005 to September 8 2006, complied in all significant respects with the requirements of Forest and Range Practices Act (FRPA) and the Fort St. John Pilot Regulation as of September 2006." See BC Forest Practices Board 2007, 8.

Pilot Project Proposal and Regulation

The proponents could only proceed with the project if their proposal had received approval from the provincial government. The Cabinet would approve it only if it met the conditions as specified in the Part 10.1 provisions (see Section 4.1.3 above). Similarly, each Part 10.1 pilot project regulation would be made effective only if it could meet the criteria listed in the Part 10.1 provisions. Within such legal boundaries, the project participants could explore alternatives to gain benefit, materially or ideologically.

4.4.3 Instrument Settings

The fundamental values emphasized in the Part 10.1 policy were specified as the same as those advocated or protected under the *Code* (e.g., the preamble to the *Code)*. Protection standards for forest resources and resource features were required to be equivalent to those provided by the *Code* and the regulations made under the *Code*. Furthermore, although the forest industry acquired flexibility in its forest planning and operations, specifications for each instrument component, performance standard, and exemption would only be sanctioned once they had been consulted with the public and other stakeholders and approval by the government.

4.5 Concerns of Environmental Groups

The exemption from the *Code* was among the issues commented by environmental groups.[37] The removal of submission requirements for operational and site plans, and the ineffectiveness of a FDP once a stewardship plan (or other strategic plan of this sort) was approved, concerned the BC Environmental Network (BCEN). The timing and methods for public consultation, the lack of forest practices information, the changing objectives and targets, and the uncertain outcomes, were also issues pointed out by environmental groups. A comment-response table that summarizes the review comments of the BC Environment Network (BCEN) and responses of the pilot project participants is summarized in Table 4.1. The table is by no means a complete list of comments and responses of all parties involved for all Part 10.1 pilot projects presented, but it provides a snapshot as to areas of concerns and extent of discrepancy.

In most cases, the regulatory frameworks under Part 10.1 were also criticized as not providing the protection equivalent to the *Code* and the *Code*'s regulations and short of government oversight, with the government's oversight moving from technical-oriented to value-based.[38] Some interviewees commented

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[37] See Table 4.1 below under the category of 'Exemption.'

[38] BCEN's comments on pilot project regulations: Gage (2002), Brewster and Clogg (2000), and Clogg and Brewster (2000); as well as personal communication with informants

that the industry was given the freedom to select, define, and modify objectives and goals for Crown land.[39] Others expressed unease about the reduced information available to the government and the public,[40] and the issue of species distribution in mixedwood forest resulting from the continuing forest type designation and stocking requirements.[41]

Briefly, the Part 10.1 policy brought doubts of environmental groups to the policy process on aspects of outcome evaluations, equivalent protection, government role, industry control, and information accessibility. In particular, several pilot project proposals also incorporated the adaptive management concept into the results-based framework. This concept allowed for a change to the objectives when a particular forest practice might not meet the original objectives. From the BC Environmental Network's viewpoint, allowing pilot project participants to make such alterations was not well justified (Gage 2002; Brewster and Clogg 2000).

On the other hand, industry groups, their consultants, workers, and government officials, were enthusiastic over Part 10.1. Some considered the ability to present landscape level strategies and the opportunity to address public interests (e.g., through the use of the Forest Operations Schedule, as in the case of the Fort St. John Pilot Project) as the major structural breakthroughs.[42] Some believed that Part 10.1 provided an avenue for volume-based forest tenure holders to coordinate at landscape level so that total cost of harvesting and road could be effectively minimized. Many trusted that Part 10.1 allowed flexibility in forest planning and forest practices thus improved forest management efficiency. Others held that the legislation facilitated the development of strategies and indicators at the local level, therefore provided trials for implementing new knowledge and information, as well as an adaptive forest management.[43]

Part 10.1 as a policy experiment did bring a variety of viewpoints to the policy-making system for future policy improvement. To what extent the Part 10.1 resembled policy learning will be discussed in the later chapters.

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39 For example, see Appendix I under the category of 'Initial position on the FSJPP' for comments: "[I] would put more responsibility back to the government.'

40 The *Code*'s section 221.1(3) (c) required that a pilot project regulation provided an opportunity for public review and comment of the forest practices under the pilot.

41 See Appendix I under the category of 'Mixedwood' for opinions such as 'plantation mentality- free-to-grow', 'problem with a free-to-grow standard,' 'a bias based on the type of the licence,' and 'not going way out the mixedwood end of things.'

42 Personal communication with informants; when asked to compare the *Fort St. John Pilot Project Regulation* with the pervious *Forest Practices Code of British Columbia Act*, informants indicated landscape level strategies as the key positive feature of the *Fort St. John Pilot Project Regulation; t*he *Code* prior to Part 10.1 did start the landscape level strategy process, but it wasn't in place across BC and it was coarse and for larger areas, zoned for a variety of resources. The Fort St. John Pilot Project landscape level strategy was new in the context of being applied to resource-specific aspects (e.g., managing multi-blocks for reforestation)

43 Personal communication with a regional government official of the BC Ministry of Forests

4.6 Conclusion

With the flexibility provided through Part 10.1, novel approaches to forest practices regulation could be tested at a limited scale. Because of its trial nature, policy actors, including the public, the government, forest companies, and environmental groups, communicated considerately and worked cooperatively. They were hopeful that the trial would thrive and the greater role of professional foresters would ensure adequate forest planning and operations. The Fort St. John Pilot Project was one of such tests, while several others eventually came to a halt with the development of the *Forests and Range Practices Act* (the *FRPA*). As of March 2007, only the Fort St. John Pilot Project and the Stillwater Pilot Project were still operational.

It is likely that the *FRPA* generally adopted the regulatory framework developed under Part 10.1. Under the FRPA regime, the approved Forest Stewardship Plan (FSP) laid out the objectives and targets that forest tenure holders had to meet. The multi-block reforestation strategy (i.e., the MSQ method and volume target) which was developed under the TFL 49 (Riverside) Pilot Project and later adopted by the Fort St. John Pilot Project has also become increasingly recognized by forest tenure holders who now operate under the *FRPA* regime. A complete comparison of Part 10.1 and the *FRPA* would require further study.

Table 4.1 Comments and Responses on Part 10.1 Pilot Project Regulatory Framework

Comments from BCEN[44]	**Pilot Proponents' Responses**[45]
Regulation -	
• Did not properly define the vision and goals, other than stated that it would be "consistent" with the preamble to the *Code* • Need to identify specific results and include them in the regulation • Enabled the pilot project participants to adopt their own voluntary standards and results	• The Cabinet would decide whether it met the tests in Part 10.1. • The stewardship plan had to meet a stringent test for government approval. • Results achievement would be substantiated by the approved indicators and measurables. • Once the stewardship plan was approved, there was nothing "voluntary" about pilot participants' obligations.

[44] Based on BCEN's comments on pilot project regulations: Gage (2002), Brewster & Clogg (2000), and Clogg & Brewster (2000)

[45] Based on pilot project proponents' responses to BCEN's comments: 1) Riverside's responses to Andrew Gage's (2002) comments, and 2) Stillwater's responses on Nov. 14, 2000 to l Brewster and Clogg's (2000) comments

Comments from BCEN	Pilot Proponents' Responses
Exemptions -	
• Exempted participants from a number of statutory requirements without creating new regulatory requirements which addressed equivalent issues – thus not providing equivalent protection to the *Code* • Did not ensure that forest practices would adequately manage and conserve forest resources, - therefore not consistent with the preamble to the *Code*. • Replacement of the Forest Development Plan and silviculture prescriptions with the stewardship plan and site level plans created *de facto* exemptions[46] from the *Code* and its regulations. It created exemptions without providing regulatory structures to provide equivalent protection to forest resources. • The exemption took away necessary information the Chief Forester needed in the making of the AAC, affected government officials' plan approval and regulatory function, and kept the inventory information out of the public domain.	• Most regulatory provisions of the *Code* would remain or be re-applied to the operations, and all other laws would continue to apply. • Equivalent protection would be achieved by meeting approved targets - rather than by writing equivalent prescriptive regulatory requirements. • Higher Level Plans such as LRMP, which stated the objectives of government and the wishes of the local community, would be followed. • There was no change or exemption from the *Code* until the stewardship plan was approved. • The combination of 1) the retained regulatory requirements, 2) a rigorous standard for stewardship plan approval and amendment, 3) the strategies that had to be developed to achieve the targets of the stewardship plan, and 4) the mandatory internal and external monitoring and reporting, would ensure that the pilot project adequately managed and conserved forest resources and was consistent with the preamble to the *Code*. • All provisions of the *Code*, the *Code*'s regulations and Forest Act which were applied to the forest tenure holders continued to apply, unless they were specifically disapplied. • The pilot project regulation replaced s.176 of the *Code*. As a result, a forest tenure holder no longer was required to prepare a Forest Development Plan, silviculture prescription or logging plan.
Role of the government -	
• Moved from the role of technical oversight to value-based oversight.	
Forest management/stewardship zones -	
• Forest stewardship zones and associate map should be attached as part of the pilot regulation	• The management zones would be established and mapped as part of the pilot regulation. However, given the concerns about having to go through the Cabinet each time for any possible future changes, the map would not be attached to the regulation. Instead, the map would be submitted by the proponents during the public comment and review period, and approved at the Ministerial level or, if delegated, the regional level.

[46] Pilot project participants were generally exempted from having to prepare terrain mapping and requirements that a company recorded and evaluated the occurrence of forest health factors, performed a terrain stability field assessment in certain areas, and restrictions on harvesting on potentially unstable terrain. These requirements were specified under the OPR sections 13, 16 & 17, and the Timber Harvesting Practices Regulation section 8.

Comments from BCEN	Pilot Proponents' Responses
Stewardship Plan (e.g., Forest Stewardship Plan, Sustainable Forest Management Plan, Woodlot Plan, etc.) contained 1) the vision and goals of the pilot project proponents, 2) the criteria, or the "conditions" identified by the pilot proponents as desirable for the pilot project area, and 3) indicators and measurables identified by the pilot project proponents against which to evaluate whether the criteria or conditions were being advanced	
- **Who should define objectives and goals for Crown Land?**	
• This level of planning should not have been done by industry	
Higher Level Plan[47]	
• The development of stewardship plan was not explicitly required to be consistent with higher level plans	
Objectives and goals for Crown Land	
• The stewardship plan generally based its criteria on the Canadian Council of Forest Ministers (CCFM) criteria, rather than on the LRMP objectives. • Government needed to be slow to give pilot project participants the power to replace the locally developed and government endorsed LRMP objectives with (the participants') own criteria which were inconsistent with the LRMP objectives. • A more appropriate approach would be to require the criteria to include the LRMP objectives, possible in addition to the CCFM criteria.	
- Technical planning requirements & approvals	
• Stewardship plans under Part 10.1 did not involve approval of technical planning requirements. • The regional manger needed to require technical information on how those goals and values were expected to be implemented. • Some technical information needed to be submitted to the regional manager at the same time as the submission of a stewardship plan.	

[47] The *Code* required the content of Forest Development Plans and Silviculture Prescriptions to be consistent with higher level plans. See the *Code's* sections 10(1) (d) & 12(a); see also sections 11(1) (c) & 13 in relation to other types of operational plans. The *Code* required that strategic plans established by the government needed to include public values and objectives, and that these values and objectives should be recognized and addressed in the course of forest operations. These strategic plans were termed as higher level plans, such as the resource management zones in the Land and Resource Management Plan (LRMP), and the designation of landscape units and sensitive areas, and the Old Growth Management Areas (OGMAs).

Comments from BCEN	Pilot Proponents' Responses
- Technical planning requirements & approvals (continued)	
• Technical information needed to form part of the stewardship plan, and should not have been allowed to be amended by the pilot project participants without notice. • With the removal of plan approval for technical planning, the amount of information available to the public review was reduced. • Since the review of technical planning information was often the only opportunity for the public to obtain information concerning forest operations, the pilot project regulations needed to include a provision allowing the public access to information required under the Operational Planning Regulation	
Strategies & targets -	
• Written rationale needed to be provided to demonstrate how the selected strategies would achieve the broad objectives for each forest management zone.	• The regulatory decision makers, in approving the stewardship plan, would have assessed whether or not the strategies and targets were consistent with the objectives of the pilot project regulation.
Public consultation -	
• If concerns were not raised during the public review of the stewardship plan and were not marked as "area of concern," there was no legal requirement to record them or to forward them to the district manager at the cutting stage. • The public would not have access to the same level of information about forest practices that would be conducted, and would not be able to comment directly on.[48] • There was little knowledge or opportunity for the public to comment on specific operations. • Because comments had to cover a very large area, this made it almost impossible for the public to identify all stand level concerns. This format put the onus on the pubic to anticipate any possible areas of harvesting within the plan area.	• Pilot project was to shift the planning process from the stand level to the landscape level to improve the process. The time delays associated with various approvals prior to harvesting resulted in inflexibility in forest tenure holders' ability to respond to market fluctuations, in addition to high administration costs. • The pilot project regulation pruned the approval system to the approval of a stewardship plan and a cutting permit process.

[48] The former *Code*'s Section 221.1(3) (c) required that a pilot project regulation provided an opportunity for public review and comment of the "forest practices" under the pilot project.

Comments from BCEN	Pilot Proponents' Responses
Public consultation – (continued)	
• The regulation reduced the ability for the public to focus their comments on specific areas of concern and could result in time spent on comments being wasted if the licensee never proposed logging there. • Information needed to be available to the public at least 60 days before a cutting permit was applied for; cutblock level comments received during this period needed to be forwarded to the district manager for consideration prior to an approval of a cutting permit. • There was no requirement as to what content had to be included in a site level plan; information about forest practices available under the *Code* might not be obtained in the pilot project. The pilot project needed to provide for broader disclosure to ensure that the public had the information required under the *Code*. • The s. 15 of the Operational Planning Regulation (OPR) required that prior to public review and approval of a Forest Development Plan (FDP), a riparian assessment had to be completed to identify the riparian class of streams, wetlands and lakes located in areas of joint approval. When the stewardship plan applied to an area of joint approval, riparian assessment had to be completed prior to approval of stewardship plan, not at the cutting permit stage as was proposed in the pilot project regulation. At a minimum, riparian assessment needed to be completed in all community watersheds within the plan area prior to public review and district manager approval.,	• Pilot project participants had to make its operational information and map available to the public. The map would be updated regularly and available at pilot participants' divisional office, local public library, an annual public display, and the monthly meetings of the public advisory group, along with public comments and pilot participants' responses. • The pilot project proposed to enhance public participation through early and ongoing involvement throughout the planning process. It could be 1) through a public/community advisory group working on the development of the management objectives, 2) through a review and comment period compatible with the *Code* requirement for the Forest Development Plan for the stewardship plan, (3) the district manager being satisfied that those comments were adequately addressed prior to the approval of cutting permits, (4) early resubmission of the stewardship plan if required by either district manager or the designated environmental official, and (5) inclusion of the public in the joint auditing process. • All proposed amendments to the landscape level strategic plan would be subject to public review and comment, but the approval of field variances at the stand level had to be allowed. • Under the OPR s. 15, riparian assessments were specific to cutblocks and road construction activities proposed on the FDP. The assessments were a stand-level requirement. As cutblocks were not shown on the stewardship plan, the requirement for riparian assessments would be addressed prior to the approval of the cutting permit, which was the trigger for stand level operations to commence. Thus, the requirement of the OPR s. 15 to complete a stand level riparian assessment prior to approval of operations was maintained.

Comments from BCEN	Pilot Proponents' Responses
Timber Harvesting and road -	
• Although the location of timber harvesting and road construction had to be submitted to a district manager 30 days before commencing the operation, site level plans didn't need to be passed on to the government until within 48 hours of the commencing. The site level plan might be the first actual indication and methods of logging plan, with that short notice, it was unlikely to allow government to live up to its obligations to consult the public and First Nations.	
Stewardship plan amendment -	
• The pilot project participants might choose to amend the stewardship plan rather than to modify the forest practices to meet their criteria. It was not appropriate to allow the pilot project participants to change objectives in response to finding that a particular forest practices would not meet the original objectives.	
Government review -	
• Without knowing specific measurables related to each management objective, it was difficult for the public or the Cabinet to assess if the requirement in s. 221.1 of the *Code* (that the pilot would adequately manage and conserve forest resources) was met.	• The Cabinet could assess whether the framework established by the pilot project regulation met the test set out in s. 221.1of the *Code*. • Specific measurables on objectives for zones were set out in the stewardship plan. • The pilot regulation established a framework for the regulators to determine if adequate management and conservation of forest resources would occur through the implementation of the stewardship plan. • Qualified government officials were required to judge whether the measurable targets and strategies proposed in the stewardship plan met the requirements to provide equivalent protection of the forest resource and resource features, so that the "dis-applications" of sections of the Code could take place. • This hierarchy of planning, combined with the regulatory test of adequately managing and conserving the resources (as found in s. 41 of the *Code*), was very consistent with the *Code*'s structure and intent.

Comments from BCEN	Pilot Proponents' Responses
Stand level approval -	
• Monitoring and auditing replacing the approval at the stand level were "after the fact," did not provide equivalent protection for forest values. • Even if the site level plan contained an obvious risk to the environment, First Nations rights, or criteria of stewardship plan, the district manager would have only 48 hours to analyze the site level plan, recognize this risk and decide how to respond. And, in many cases a risk to the environment would arise from circumstances or characteristics not obvious on the face of a site level plan. • A site level plan was simply developed with no government oversight. • The pilot project regulation only assigned the officials the right to request plans (with no obligation of the participants to provide them), and did not give the officials ability to require changes to layout or design in the event there were problems with the plans.	• Through the approval of the stewardship plan, the "adequately manage and conserve" test was met at both the landscape level and the stand level. • The stewardship plan specified stand level targets and strategies that would guide operational planning and measure performance. • Commitments to stand level standards could be found in the stewardship plan. • • Implementation of the strategies and achievement of the standards became the responsibility of the professionals. The legal obligations became the responsibility of the forest tenure holders. Thus, it would be redundant at the cutting permit stage to insert site level test. • What the pilot project participants would use to achieve the approved results was left to the professional expertise and staff judgment of the participants. They had to follow the criteria and comply with the many remaining *Code* standards. As a result, in no way was any participant simply developing "its own results." • The results or criteria of the stewardship plan had to meet objective and subjective tests, including the requirement that they adequately managed and conserved forest resources and resource features and were consistent with the applicable LRMP objectives. It was the government who determined whether these results met the approval tests
Baseline data -	
• To make a results-based approach work, it was critical that the participants complete appropriate inventory and collect sufficient baseline data, so that whether values and objectives were upheld could be measured against.	• The pilot project in its form was an incremental approach to results-based management. It built a monitoring and valuation framework in a results-based process. The strategies and targets contained in the stewardship plan were designed around the *Code* requirements and practices, therefore would generate the baseline information. As well, all inventory commitments applied to the pilot project area.

Comments from BCEN	Pilot Proponents' Responses
Adaptive management -	
• There was no requirement to amend the stewardship plan to take into account new information or comments subsequently received	• The participants would amend the stewardship plan where forest practices would not meet the targets or strategies specified in the stewardship plan, or where new information that necessitated a change was made available • The pilot project regulation required the stewardship plan to be consistent with a number of documents, including higher level plan**,** the Watershed Management Plan and Landscape Unit Plans. An additional provision had been added to require the participants to submit the proposed amendments to the stewardship plan if any of these documents was changed or new information necessitated a change.
Monitoring and evaluation -	
• The pilot project regulation neither required base-line data, nor asked the participants to collect inventory data. This made it difficult to monitor the effect of the regulation on ecological values.	All inventory commitments would apply to the pilot project area.
Compliance and enforcement -	
• A new category of defence was proposed. It created a range of eligible defenses arising from situations where the participants had not intended the result to occur. It ranged from "due diligence" defence to situations where the offence was caused by a natural disturbance. • Concerns over such defences included: compensation, lack of incentives for high standards, deficiency in clarity of responsibility, and confusion around causation. The Courts had generally assigned liability to the party most able to control the situation; due diligence defence should have only been available for penalties over and above an amount of compensation. The participants needed to demonstrate that they took steps to ensure that high level standards were pursued. It would rely on the participants for evidence as to whether due diligence was exercised; as a result, much of the effectiveness of the penalty sections would be lost. Particular, the defence arising from natural disturbance would raise questions of causation. • The risk of treating the participants unfairly in extreme cases should not have clouded the issues of responsibility in every case. It should only be addressed as one factor which the government may consider in determining the penalty. • The pilot project participants needed to be required to mitigate damage to forest resources resulting from their forest practices and responsible for compensating the public for loss as a result of their forest practices, regardless of whether the participants had intended it or not.	

Chapter Five

Forest Policy in Northeast BC in the 1990s and the early 2000s

This chapter brings our attention to boreal BC, the Boreal White and Black Spruce (BWBS) Zone in Northeast BC in particular. It begins with a description of the region and an introduction of its forestry development in recent decades. It then gives an overview of the region's forest management, land use, and timber supply policies, followed by a closing section. The purpose of this chapter is to present a regional policy background for the Fort St. John Pilot Project - a case study of this thesis that will be detailed, analyzed, and explained in the remaining chapters.

5.1 Northeast BC

Primarily in Northeast BC, BC boreal forest is found in the Biogeoclimatic Ecosystem Classification (BEC) Boreal White and Black Spruce (BWBS) Zone, which makes up about 10% of the total land area of British Columbia and comprises mostly white spruce, trembling aspen, lodgepole pine, and black spruce forests (DeLong, Annas, and Stewart 1991; McDowell and Fergusson 1996, 2). The BWBS Zone includes the communities of Fort St. John, Fort Nelson, Taylor, Telegraph Creek, Dease Lake, Atlin and several smaller settlements. About half of the ecosystem in the area is muskeg, swamp, and unproductive forest land; the rest of the BWBS Zone contains several different upland forest types, which provide a great diversity of habitat for many species native to the boreal forests (McDowell and Fergusson 1996, 3).

Forest fires are frequent throughout the landscape, maintaining most of the forests in various successional stages (DeLong, Annas, and Stewart 1991, 238). The forest fires trigger forest succession where the burned site is quickly occupied and dominated by herbs, shrubs, and deciduous trees such as aspen and willow. Over time, conifers such as white spruce and black spruce re-establish and overtake the deciduous forests and become the dominant tree species. Because of the frequent fires, the landscape in the BWBS Zone is generally a mosaic of forest stands with various types and, with deciduous forests being common, providing productive habitats for ungulates, a wide selection of birds, and a variety of small mammals (DeLong, Annas, and Stewart 1991, 245; McDowell and Fergusson 1996, 1-3). Natural resources activities in the region consist of hunting, fishing, trapping, logging, oil and gas extraction and exploration, ranching, and grain production. The Peace River Valley near Dawson Creek and Fort St. John has some of the BC's richest farmland (DeLong, Annas, and Stewart 1991, 240; McDowell and Fergusson 1996, 4). Two forest districts, the Fort Nelson Forest District and the Peace Forest District, oversee the forest management in

Northeast BC,[1] where the Fort St. John TSA and the Fort Nelson TSA are situated. Northeast BC is also homeland to Treaty No. 8 First Nations, and six of the Treaty No. 8 First Nations are represented by the Treaty No. 8 Tribal Association in the region.[2]

5.2 Forest Industry in Northeast BC

Forestry in the Fort St. John Timber Supply Area

Located in the northeastern BC BWBS Zone, the Fort St. John Timber Supply Area (TSA) is the sixth largest in BC and covers 4.67 million hectares. The forest industry arrived in the TSA in the late 50's, and lumber was cut in many small mills along the Alaska Highway until the 70's. In the 1990s, Canadian Forest Products Ltd. (Canfor) operated two sawmills in the Fort St. John TSA, acquiring 95% of the TSA's coniferous AAC. Fibreco Export Inc. (Fibreco) opened a pulp mill in Taylor in the late 80's and utilized coniferous chips from sawmills in the region in the early 1990's. Slocan Forest Products Ltd. (Slocan) invested (80%) in Fibreco in 1991 and later fully owned the Fibreco in the late 90's. In addition, there were 90 some registrants in the Small Business Forest Enterprise Program (SBFEP) and 20 some Woodlot Licence holders in the Fort St. John TSA (Pedersen 1996).

In the late 80's, two forest companies - Slocan and Louisiana-Pacific Canada Ltd. (LP) - were successful in bidding for the deciduous AAC in the Fort St. John TSA and each retained a Pulpwood Agreement (PA 12 & PA 13) (Fort St. John Forest District 1996; Pedersen 1996).[3] Despite the successful allocation of deciduous AAC, no deciduous was harvested until recent years, for there wasn't a major facility utilizing deciduous (aspen) in the TSA.

In 2000, Slocan and LP formed a joint venture company - Slocan-LP OSB Corp - in response to BC government's call in 1998 for proposals to harvest aspen and cottonwood in the Fort St. John TSA. In 2004, Canfor purchased Slocan and took over the ownership and management responsibility of Slocan; the joint venture was renamed as Canfor-LP OSB Corp. The new joint venture began its oriented strand board (OSB) operation in late 2005.

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1 The Peace Forest District covers the Fort St. John Timber Supply Area and the Dawson Creek Timber Supply Areas.

2 Member communities of the Treaty 8 Tribal Association include Doig River First Nation, Halfway River First Nation, Prophet River First Nation, Saulteau First Nations, Fort Nelson First Nation, and West Moberly First Nations, See http://www.treaty8.bc.ca/communities for summary of each Treaty 8 First Nation

3 In late 80's, as a result of emerging interest in the deciduous resource, the Ministry of Forests invited applications for Pulpwood Agreements. The Fibreco Exports Inc. agreed to construct additional pulping capacity to use the deciduous resource from PA 12. An agreement was also offered and accepted by the Makin Pulp and Paper Ltd. to construct a pulp mill at Brittania Beach to use the deciduous resource from PA 15, but the agreement was cancelled in 1994. See BC Ministry of Forests (n.d.(b), 8) and Pedersen (1996).

Slocan (later Canfor) and LP had a Memorandum of Agreement (MOA) with five Treaty No. 8 First Nations on the deciduous volume for their OSB plant. Under the MOA, a Joint Management Advisory Committee (JMAC) that consisted of representatives from each of the five Treaty No. 8 First Nations and from Canfor and LP was established. The JMAC held quarterly meetings, and usually during those meetings information concerning forest management was shared and discussed between the forest industry and First Nation groups. Since the functioning of the Fort St. John OSB plant in 2005, First Nations who were involved in the MOA began to look after the log yard and the scaling of deciduous volume that was part of the OSB plant (personal communications with a First Nation representative and a representative of the Fort St. John Pilot Project participants).

In late 2001, the three major forest tenure holders in the Fort St. John TSA – Canfor, LP, and Slocan – and the Small Business Forest Enterprise Program (SBFEP, now BCTS) jointly proposed a Part 10.1 pilot project – the Fort St. John Pilot Project (FSJPP) - to experiment with a results-based forest practices regulatory framework. The West Moberly First Nation was also involved in the FSJPP because the community had a joint renewable forest licence with Canfor. The pilot project continues to operate to date (see next chapter for details of the FSJPP). In the Fort St. John TSA, currently Canfor purchases, harvests, and grows timber for the three major wood processing facilities - the sawmill, the pulpmill, and the OSB plant.[4]

Forestry in the Fort Nelson Timber Supply Area

Situated in the far northeastern corner of BC, the Fort Nelson Timber Supply Area (TSA) is the second largest timber supply area in BC, covering about 9.9 million hectares, with 4.2 million hectares of productive forest land. Of the TSA area, about 22% of the productive forest is considered available for harvesting.[5] Spruce, aspen, pine and cottonwood were the tree species most commonly harvested by the forest industry in the TSA, and there had been interest to harvest birch (BC Forest Service 1992, 4; BC Ministry of Forests 1997a, 3-4; BC Ministry of Forests 2000a, Executive Summary). As well, a significant proportion of the timber harvesting land base (THLB) in the TSA is mixedwood stands.[6]

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4 It is noted that deciduous use in the Dawson Creek timber supply area and in the Fort Nelson timber supply area was ahead of the Fort St. John timber supply area. LP's Dawson Creek Division has been using deciduous since 1989. Slocan established an OSB plant in Fort Nelson area in 1996.

5 The original size of the Fort Nelson TSA was about 8.2 million hectares, about 1.5 million hectares within the Cassiar TSA was added to the Fort Nelson TSA sometime after 2000. However, the area added is remote and not expected to contribute significantly to timber supply in the short term. See BC Ministry of Forests 2000a, Executive Summary.

6 About 35% of the coniferous timber harvesting land base is mixed coniferous-deciduous stands, and about 32% of deciduous timber harvesting land base is mixed deciduous-coniferous stands. See BC Ministry of Forests, 2000a Executive Summary.

By 1996, Slocan had established an OSB plant utilizing deciduous timber supply in the Fort Nelson TSA. Tackama Forest Products Limited, a subsidiary of Slocan, is the largest company in the Fort Nelson TSA. Another major forest industry employer in Fort Nelson was Canadian Chopstick Manufacturing Company Limited, which utilized some of the area's aspen, but was later permanently shutdown on April 1, 1997 (BC Ministry of Forests 1997a, 4). Slocan and its subsidiary Tackama Forest Products are the major wood processors in the Fort Nelson TSA; they operated a sawmill, an OSB plant and a veneer/plywood mill (BC Ministry of Forests 2000b) in the TSA until April 2004, when Canfor acquired Slocan. Since then, Canfor became the only major corporate license holder in the Fort Nelson TSA.[7]

5.3 Forest Management in Northeast BC

Rising interest in deciduous and mixedwood and the establishment of OSB plants

Since the 80s, utilizing deciduous species became popular in the boreal mixedwood regions. In 1987, a working group met at the Boreal Hardwood Research and Development Meeting in Prince George and identified boreal hardwood use and management problems. Outdated inventory, land use conflicts, short of hardwood stocking standards, as well as deficiency in stand tending requirements, growth projections, and reforestation requirements, were among such problems.[8] Apparently, the government's effort in this region in the late 1980s was focusing on mixedwood reforestation and hardwood utilization.[9]

The BC Ministry of Forests formed a task force to facilitate the use of deciduous trees (or hardwoods); and in 1986 the task force recommended the interim strategies for managing hardwoods in the Peace Timber Sales Area (now the Fort St. John Timber Supply Area and the Dawson Creek Timber Supply Area). Despite government's effort, growing public concerns over forestry practices in the region[10] deferred the industrial use of deciduous and mixedwood forests. It was not until 1996 and 2005 when Slocan established the OSB plant in Fort Nelson and the Fort St. John respectively that industry began to process the deciduous harvested into a medium-density fiberboard.[11]

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7 Canfor announced in January 2008 that the company's OSB plant and plywood mill in Fort Nelson would be shut down (Hamilton 2008a). But in February 2008, the company reversed its decision on closing its Takama plywood plant (Hamilton 2008b).

8 Other problems that were pointed out include slash disposal, regeneration response, soil compaction, erosion, and gene conservation. See Peterson, Kabzems, and Peterson 1989.

9 Navratil, Brantner, and Zasada (1991, 41) points out issues of mixedwood management: the lack of well tried silvicultural practices for the treatment of mixedwood stands, and the absence of understanding of biological dynamics in boreal forest ecosystems.

10 See Sterling (1994) and a Rainforest Action Network report in 1994 claimed that Canadian Chopstick Manufacturing Company (CCMC), a subsidiary of Japan's Mitsubishi Corporation, at its Fort Nelson operation in BC wasted 85% of the aspen that it cut to produce chopsticks.

11 Louisiana-Pacific (LP) also began its operation of OSB plant nearby Dawson Creek at a later time.

The LRMPs, the timber supply reviews, the Part 10.1 legislation, and the Fort St. John Pilot Project

As noted in Chapter Three, the comprehensive, multi-tiered land use planning that involved the public (BC Forest Resources Commission 1991) subsequently led to the creation of the Land and Resource Management Plan (LRMP) in 1997 for the sub-regions of the Fort St John TSA and the Fort Nelson TSA (see Section 5.4 below). Also, the AAC determinations in Northeast BC in the 90's and the early 2000's followed the province-wide new timber supply review process. During that time, the region's timber supply encountered two policy issues: a reduction of future coniferous inventory due to forest succession in the region, and the uncertain post-harvest silviculture regime for mixedwood stands (see Section 5.6 below). With Higher Level Plans such as the LRMPs and the Muskwa-Kechika Management Plan (see Section 5.5 below) becoming available and the Part 10.1 legislation coming into force, a results-based pilot project was proposed to test the alternative forest practices regulatory framework in the region.

In late 1999, a group of volume-based forest tenure holders led by Canfor in the Fort St. John Timber Supply Area submitted a Part 10.1 pilot project proposal – the Fort St. John Pilot Project - and a draft of pilot project regulation to the Ministry of Forests for review and approval. In June 2001, the Fort St. John Pilot Project (FSJPP) proposal was approved, and in December 2001 its pilot project regulation was made effective. As of July 2009, the regulation is still in effect. [12]

5.4 Land Use Policy in Northeast BC

As part of the overall provincial strategic land use planning process,[13] the Fort St. John LRMP and the Fort Nelson LRMP were both initiated in 1993 and developed under the provincial land use policy initiatives. The two LRMPs were both approved in October 1997 by the BC government. The public, the local industry, and the government resource agencies jointly developed those LRMPs, which resulted in changes to protected areas, the zoning of land base for various extent of forest management, and a planning framework for the Muskwa-Kechika Management Area**.** In keeping with the guidance provided by these LRMPs, industrial development was usually permitted in all categories of resource management zones, with the exception of the Protected Areas. Each LRMP provided strategic directions for more detailed planning in resource development in its planning area, and demanded resource management strategies to minimize negative impacts on environmental and conservation values.

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[12] See BC Ministry of Forests and Range, Results-Based FPC Pilot Project home page at http://www.for.gov.bc.ca/hfp/rbpilot/index.htm#update

[13] Each LRMP followed the same principles and process (i.e., considering all resource values, requiring public participation and interagency coordination as well as consensus-based decisions) suggested by the Integrated Resource Planning Committee in 1993. Each LRMP formed a sub-regional component of the proposed BC's provincial Land Use Strategy.

The Fort St. John LRMP and the Fort Nelson LRMP in Northeast BC had many similarities and some differences. Both LRMPs incorporated the principle of integrated resource management into a long term plan (ten years) for resource development on the sub-region's Crown land within the respective planning area. The majority of the land use management directions provided by the two LRMPs for each land use category were similar. These LRMPs were the outcome of the collective deliberations of a range of local private citizens, stakeholders and government agency representatives. Together they developed objectives and strategies for 64 resource management zones, and recommended 32 areas for protection; also each designed a similar framework for implementation and monitoring. Additionally, the two LRMPs offered policy recommendations with regard to the Muskwa-Kechika Management Area (see Section 5.5 below), special consideration for large protected areas and the subsurface resources under protected areas, and matters concerning other important land use issues.

Both LRMPs increased the outlook for protected areas in Northeast BC, and decreased the prospect for enhanced resource management in both planning areas. As a result, the long term economic growth in the petroleum and forest industries was expected to be somewhat reduced in the Fort St. John LRMP planning area. New exploration for, and development of, gas reserves would likely be impacted in the Fort Nelson LRMP planning area, since the then existing laws prohibited gas exploration/development in parks. Risks to wildlife population and backcountry recreation/tourism activities were anticipated to be lower as a result of the *Code*, new Protected Areas, and the reduced chance of regional fragmentation. Existing jobs and land base for timber supply were not expected to be significantly impacted by both LRMPs.

Differences between the two LRMPs in their weighting of each land use category and management directions reflected the unique structure of the local economy of each planning area. The Fort St. John LRMP (1997) proposed 12% of the planning area for Agriculture/Range and Settlement Areas while the Fort Nelson LRMP proposed no area zoned for such use. In the Fort St. John LRMP planning area, where energy and agriculture sectors were much more significant compared to forest sector, a higher percentage of the planning area was proposed for general resource development (46% of the planning area for integrating resource values). This difference in allocation illustrated the importance of integrated resource management when significant competing resource values exist. As a result, the Fort St. John LRMP (1997) suggested integrating energy and mineral exploration and development activities with other resource activities, and utilizing flexible timber harvesting activities to accommodate other resource values. These suggestions further indicated the importance of integrated resource management when multiple sectors were competing for resource benefits within the same land base.

Compared to the Fort St. John LRMP (1997), the Fort Nelson LRMP (1997) proposed a higher percentage of the planning area for protected areas (11% of the planning area for resource values other than industrial

uses), for enhanced resource development (36% of the planning for intensive resource development), and for special resource management (29% of the planning area for limited resource development), but a lower percentage of the planning area for general resource development (24% of the planning area for integrating wide array of resource values). This revealed the nature of a forestry-dominant local economy in the Fort Nelson LRMP planning area. As may be expected, the Fort Nelson LRMP (1997) emphasized the need to initiate landscape unit planning in priority and use knowledge of natural disturbance patterns for such planning. In addition, the Fort Nelson LRMP (1997) suggested maintaining and/or enhancing continued supply of timber, salvaging timber and reducing loss of the timber harvest land base, and reforesting all non-satisfactory restocked area with commercial species. These recommendations showed the strong support the Fort Nelson LRMP (1997) gave to the forestry sector in the planning area.

Regarding the overall forestry directions in Northeast BC, harvesting that emulated natural disturbance was encouraged; therefore some larger openings were acceptable. While both LRMPs emphasized the importance of maintaining diversity of wildlife and old-growth attributes, they recommended this could be done without compromising both consumptive and non-consumptive goals. As the Fort St. John LRMP (1997) highlighted landscape level silviculture systems and flexible harvesting activities, the Fort Nelson LRMP (1997) emphasized landscape unit planning for seral stage distribution, reforestation with commercial species, and rehabilitating disturbed forest land. The two LRMPs both recommended maintaining or enhancing timber supply, salvaging damaged or killed timber, and reducing loss of the timber harvest land base. In short, large scale, flexible harvesting and silviculture system were acceptable, in the opinion of the two LRMP planning tables, in Northeast BC, and sustainable timber supply was emphasized as well.

5. 5 The Muskwa-Kechika Management Area

Subsequent to the approval of the two LRMPs in Northeast BC, on June 18, 1998, BC Premier Glen Clark announced a significant land use decision in BC - the establishment of the Muskwa-Kechika Management Area (the MKMA) through a separate act, the *Muskwa-Kechika Management Area Act* (assented to July 30, 1998). The MKMA is a vast wilderness area (6.4 million hectares) in British Columbia's Northern Rockies, overlapping the Fort Nelson LRMP and Fort St. John LRMP areas. The area includes 1.735 million hectares of parks and protected areas, and is surrounded by special management areas. [14]

The *Muskwa-Kechika Management Area Act* provided approval structures at the local level that would lead to more timely and efficient approvals for industrial development. An advisory group and a legislated trust

[14] See http://www.muskwa-kechika.com/library/media/bg98_06-18.html and http://www.qp.gov.bc.ca/statreg/stat/M/98038_01.htm, accessed November 2005; http://www.muskwa-kechika.com/management-area/legislation.asp, accessed May 16, 2007

fund were devised to represent a balance of environmental, economic and sustainable development interests for the area and support the management of the MKMA. The *Muskwa-Kechika Management Area Act* allowed exemptions from certain planning requirements and permitted amendments to the Muskwa-Kechika Management Area Management Plan from time to time. The *Muskwa-Kechika Management Act* was unique in being the first legislated example of the use of regulatory policy and fiscal policy (i.e., establishment of a trust fund to finance projects in support of the Muskwa-Kechika Management Area intent) to advance conservation on lands allocated for resource development in the boreal forest.[15]

In the Muskwa-Kechika Management Area, Special Management Zones (SMZs) were areas identified as containing special ecological or social values with an overall goal to protect biodiversity and other non-timber values and functions. The goal would be achieved through management systems based on ecology instead of ones based on resource extraction (Cooperman 1998). Hence, timber harvesting in the Muskwa-Kechika Management Area was expected to be conducted in a manner that would conserve non-commercial forestry values such as wildlife habitat, wilderness recreation, biological diversity, visual quality, and spiritual and cultural values. Similarly, objectives established for each landscape unit would guide the forestry activities in the Muskwa-Kechika Management Area.[16]

5.6 Timber Supply in Northeast BC

The following sections review the timber supply policy and AAC determinations in Northeast BC, where the Fort St John TSA and the Fort Nelson TSA situated. The review depicts the forest practices scheme, its constraints, issues or uncertainties, and government's deliberation at the time of each AAC decision for the region. This section also makes note of challenges that the timber supply in Northeast BC encountered. The purpose is to unveil how forest operability and management practices evolved in Northeast (or boreal) BC in the 90's and the early 2000's and what changes took place. Similar to the land use policy section, this section hopes to shed light on how changes in timber supply determinations set the context for the fibre allocation, therefore the economic significance and dynamics among stakeholders, and factors that motivated policy change in the studied regions.

Timber Supply in the Fort St. John TSA

Timber supply in the Fort St. John TSA prior to 1990 was characterized by three features: non-recognition of deciduous values, a preference towards spruce, and overestimation of the coniferous yield. Due to a general non-recognition of deciduous values, the deciduous stands were not considered merchantable until the late 80's (Girvan and Pousette 1990, 6). Also, because of the species preference, the heights and ages of the inventoried forest-cover polygons were representative of those of the second or preferred species, which

[15] Ibid.

[16] See http://www.muskwa-kechika.com/management-area/forestry.asp, accessed on May 16, 2007

was generally spruce instead the leading species. As a result, the forest cover maps resulting from pre-90's inventories generally showed what was labeled but not what was there in the woods (Girvan and Pousette 1990, 6, 7, 105). In addition, yield forecasts generally overestimated the coniferous growing stock in mature stands (Girvan and Pousette 1990, 104).

In 1981, the AAC for the Peace Timber Sales Area, which in 1987 was divided into the Dawson Creek Timber Supply Area (TSA), the Fort St. John Timber Supply Area (TSA), and TFL 48 (see Section 5.8 later),[17] was determined to be 2 million m^3/year for predominately coniferous stands. The Fort St John District's apportionment of this coniferous AAC was 909,660m^3/year, and there was no AAC established for deciduous stands at the time (Pedersen, 1996). Soon after the 1981 AAC determination, three factors prompted a forest resource analysis: Canfor's application for a Tree Farm Licence (TFL), the revision of the TSA boundary, and the requests for deciduous licences (Girvan and Pousette 1990, 52-5). In 1986, a timber supply option that addressed the utilization of deciduous stands was proposed for the first time in an analysis report titled "*The Peace Timber Supply Area Options Report*" (Girvan and Pousette 1990, 52-5).[18] In 1987, the AAC determined for the Fort St John TSA was determined to be 1.85 million m^3/year (900,000m^3/year for coniferous stands and 950,000m^3/year for deciduous stands, see Girvan and Pousette 1990, 56; Pedersen 1996).

Although in 1987, for the first time, a deciduous AAC was determined for the Fort St. John TSA, there was no deciduous processing capacity in the TSA. To attract industry that could utilize deciduous timber supply in the TSA, the government assumed all deciduous-leading would support the deciduous AAC (Girvan and Pousette 1990, 56). In 1989, the AAC for the Fort St. John TSA was determined as 1.82million m^3/year, with a slight increase for coniferous stands to 900,162m^3/year and a reduction for deciduous stands to 915,000m^3/year (Pedersen 1996). Nonetheless, no significant deciduous harvesting occurred during that period.

In the early 90's, several reports encouraged the development of a new Timber Supply Review (TSR) process in BC at the provincial level: 1) the internal review report known as the Errico/Pedersen Report (BC Ministry of Forests 1991), which expressed concerns over the relevancy and quality of timber supply analysis in the 80's, and 2) the BC Forest Resources Commission's report entitled *The Future of Our Forests* (April, 1991, 82, 84), which recommended an improved timber supply review process for a sustainable fibre supply. In addition, Girvan and Pousette's (1990) technical review (*A Technical Review of Inventory and AAC for the Fort St. John TSA*, prepared for the BC Forest Resources Commission),

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17 See http://www.for.gov.bc.ca/hts/tsr1/ration/tsa/tsa41/41Ra0003/htm, accessed December 2, 2007

18 Government's intention of only allowing the benefits of intensive silviculture when the treatments were complete and the stands had matured, instead of allowing an immediate AAC effect, was also indicated in the 1986 Options Report. See Girvan and Pousette 1990, 107.

recommended examining the mixedwood management opportunities.[19] As a result, a new Timber Supply Review process occurred in the region, with round one being in the in the mid 90's and round two in the early 2000s

Public timber supply in the Fort St. John TSA in the 90's and early 2000's could be characterized by two phenomena: increasing the coniferous AAC level and maintaining the deciduous AAC level, as shown in Table 5.1.

Table 5.1 Determined AAC for the Fort St. John TSA

Year	AAC (m^3/year)	
1996	2,015,000	1,100,000 coniferous-leading
		915,000 deciduous-leading
2003	2,115,000	1,200,000 coniferous-leading
		915,000 deciduous-leading

Source: Pedersen (1996, 2003)

The majority of the deciduous AAC was intended to supply an OSB plant proposed in the TSA during the late 90's. Near the end of 2005, an OSB plant that utilized mainly aspen eventually began its production in the Fort St. John TSA.

In summary, prior to 1986, AACs determined for the Fort St. John TSA were predominately based on industrial preference for spruce stands with little recognition of deciduous value. The first deciduous AAC for the Fort St. John TSA was determined in 1987 with little efforts made to identify "merchantable" deciduous land base, and consequently most (94%) of the deciduous land base contributing to the deciduous AAC. Since then, the deciduous AACs stayed the same level to date, except a slight reduction in 1989. The majority of the deciduous AAC in the Fort St John TSA was intended to supply an oriented strand board (OSB) plant proposed to operate in the Fort St. John TSA.

On the other hand, the coniferous AACs in the Fort St John TSA have been increased three times during the past three determinations, owing to factors such as the AAC effect, inclusion of previously not

[19] In addition to recommending examining the mixedwood management opportunities in their technical review report, Girvan and Pousette (1990) also put forth the following recommendations to the BC government: maximizing the minor species components' recovery, carrying out intensive silviculture program, and monitoring seismic activity so that appropriate adjustments to land base could be made.

considered harvestable stands (i.e., small pine stands), and increased volume estimates for regenerated stands. Discussion concerning mixedwoods management only began as a result of a technical review for the Fort St. John TSA (Girvan and Pousette 1990). To date, harvesting mixedwoods in the TSA remains small scale and mixedwood management strategy is still under development.

In addition, since 1995, the Fort St. John TSA timber supply analyses zoned the TSA's timber harvesting land base according to similarity of resource management practices (or emphases) and incorporated the principle of integrated resource management to take into account non-timber values. Provisions such as forest cover (especially old-age forest cover), stand- and landscape- level biodiversity requirements, riparian reserves and riparian management zones, visual quality, and protected areas only became additional timber supply constraints when the *Code* and its supplement guidebooks and the approved LRMP were fully implemented.

Fort St. John TSA AAC apportionment

In the 90's, forest tenure holders active in the Fort St. John TSA included Canadian Forest Products Ltd (Canfor), Fibreco Export Inc. (Fibreco), Slocan Forest Products Ltd. (Slocan), Louisiana-Pacific Canada Ltd. (LP), the SBFEP (now BCTS), and some Woodlot Licence holders. The allocation of AAC to each forest tenure holder in the Fort St. John TSA is summarized in Table 5.2.

Table 5.2 Allocation of AAC to Forest Tenure Holders in the Fort St. John TSA in the 90's

Tenure Holders		AAC (m^3/year)
Canfor	Forest Licence A18154 (replaceable)	394,952 (coniferous-leading)
	Forest Licence A56771 (non-replaceable)[20]	150,000 (coniferous-leading)
Slocan (acquired by Canfor in April 2004)	Pulpwood Agreement No. 12 (non-replaceable)	500,000 (deciduous-leading)
LP	Forest Licence 60049 (non-replaceable)	193,000 (deciduous-leading)
	Forest Licence 60050 (non-replaceable)	0
	Forest Licence 60972 (non-replaceable, later held by Tembec Industries Inc.)	69,085 (coniferous-leading)
	Pulpwood Agreement No.13 (non-replaceable, later held by Tembec Industries Inc.)	18,000 (deciduous-leading)
BCTS	Timber Sale Licence	372,059 (coniferous-leading)
		180,000 (deciduous-leadings)
	Forest Licence (non-replaceable)	70,000 (coniferous-leading)
Woodlot Licence holders		23,818 (coniferous-leading)
		12,641(deciduous-leading)

Source: http://www.for.gov.bc.ca/hth/apportionment/Documents/APTR011%2040.PDF, accessed November 29, 2007

Operating under the provincial forest policy framework and the regional land use and timber supply configurations, in 2001 the three leading forest tenure holders - Canfor, LP, and Slocan – and the SBFEP (later became BCTS) in the Fort St. John TSA jointly entered into a Part 10.1 pilot project to experiment with a results-based forest practices regulatory framework (BC Ministry of Forests 2002) and West Moberly First Nations were partners of the pilot project (Canadian Forest Products Ltd. 1999, 10). A detailed account for the development of the Fort St. John Pilot Project will be provided in the next chapter, and analyzed and explained in Chapters Seven and Eight.

Timber Supply in the Fort Nelson TSA

Before 1990, other resource values (e.g., forest recreation, landscape and wildlife) in the Fort Nelson TSA were not integrated well into timber supply planning models, and harvest models were exclusively focusing on a series of harvesting rules (e.g., harvesting oldest ages, maximum volume, or the slowest growing stands first). In 1989, the AAC determined for the Fort Nelson TSA was 972,000m^3/year, including

[20] West Moberly First Nations were partners on FL A56771. See Canadian Forest Products Ltd. 1999, 10

77,000m^3/year of aspen added to the TSA's 1988 AAC (i.e. 145,000m^3/year of cottonwood and 750,000m^3/year of conifer) (Prince George Forest Region Planning and Inventory Section 1992, Executive Summary). As a result of changing public values, improved technology, and a strong deciduous market, issues surrounding timber harvesting began to emerge in late 80's (BC Forest Service 1992).

Upon reviewing the historical forest management performance (1983 – 1989), the BC Ministry of Forests found that, due to a lack of basic silviculture, the forest profile in the Fort Nelson TSA was altered and the productivity of the forest was expected to decline substantially (BC Ministry of Forests 1993a, 10). Based on the 1992 Analysis (Prince George Forest Region Planning and Inventory Section 1992, Executive Summary) and the recommendations of the report *Aspen Resources* (Prince George Forest Region Planning Section 1993), aspen became a commercial species in the Fort Nelson TSA in the 90's, and that led to a sufficient supply of aspen - a 54% increase (mainly deciduous) in deciduous AAC in 1994. The AAC for the Fort Nelson TSA in 1994 was increased to 1,500,000m^3/year, of which 600,000m^3/year were partitioned to coniferous-leading stands and 900,000m^3/year were partitioned to deciduous-leading stands. The increase in 1994 deciduous AAC was mainly due to the improved outlook regarding the economics of utilizing aspen.

Following the 1994 AAC determination, harvesting in mixedwood stands in the Fort Nelson TSA became active, and decision of whether to include an area of mixedwood stands became dependent on multi-variables rather than just the forest types. Also, both coniferous and deciduous stands were included in the calculation of delivered wood costs (DWCs), instead of coniferous stands only. This change made some areas more economical for harvesting operations. To reflect these changes, an inclusion of forest stands previously not considered doubled the coniferous timber harvesting land base in the 2000 Analysis for the TSA. Nonetheless, given the wide range of uncertainty in inventory and in information regarding mixedwood contribution, the Chief Forester decided that an increase in both coniferous harvest and deciduous was not justified.

Consequently, effective September 1, 2001, the AAC for the Fort Nelson TSA was set at the same level as that in the 1994 determination. In the AAC determination in 2001, Chief Forester Larry Pedersen assumed that the effect of landscape-level biodiversity objectives on the AAC for the Fort Nelson TSA would not be significant due to the abundance of forest outside the timber harvesting land base in most landscape units. Pedersen also considered that the designation of park areas resulted from the implementation of the Fort Nelson LRMP had only a minor impact on the timber harvesting land base. Moreover, Pedersen also believed that, up to 2001, few policy initiatives for forest land use and the *Code* and the *Code*'s guidelines appeared to cause significant impact on the AAC in the Fort Nelson TSA.

In a nutshell, the Fort Nelson TSA's AAC in 1994 reduced coniferous allocation[21] and significantly increased the allowable deciduous (mostly related to leading aspen stands) harvest. The majority of the deciduous increment was allocated for the pulpwood agreement held by Slocan Forest Products and the company's new OSB plant.[22] As a result of a 1997 re-evaluation which indicated that the coniferous portion in the Fort Nelson TSA was likely to increase, effective in November 2006, a minor increase in coniferous AAC, compared to the 1994 and 2001 AAC levels, was allocated in the Fort Nelson TSA. The third round of timber supply review for the Fort Nelson TSA was initiated in 2003 and was conducted by a DFAM group (see Section 5.7 below for its development) in the TSA.[23]

The Fort Nelson TSA AAC apportionment

Tackama Forest Products Limited (a subsidiary of Slocan Forest Products Ltd.), Slocan Forest Products Ltd, and Canadian Chopstick Manufacturing Company (CCMC) Ltd.[24] were the three major wood processors operating in the Fort Nelson TSA in the 90's (BC Ministry of Forests 1997a, 4).[25] They operated a saw mill, a veneer/plywood mill, a CCMC plant, and an oriented-strand board (OSB) facility in the TSA (BC Ministry of Forests 2000b).[26]

With regard to the allotment of the Fort Nelson TSA's AAC to each individual forest tenure holder in the sub-region, Slocan Forest Products held a pulpwood agreement (610,000 m^3/year of deciduous) mainly to supply its OSB mill in Fort Nelson. The CCMC held a forest licence (aspen) A32900, which was originally set at 77,000m^3/year (subsequently reduced to 69,364m^3/year) but a much higher aspen volume was

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21 The coniferous AAC was allocated for licensees committed to increase the harvest of lodgepole-pine-leading stands and lower quality stands.

22 http://srmwww.gov.bc.ca/rmd/lrmp/frtnelsn/app2/app2exec.htm; http://srmwww.gov.bc.ca/rmd/lrmp/frtnelsn/app3/app3sec2/htm; AAC Rationale fro Fort Nelson TSA November 2006, available at http://www.for.gov.bc.ca/hts/tsa/tsa08/tsr3/08ts06ra.pdf, accessed May 17, 2007; Prior to the 1994 AAC determination, the sole user of the aspen harvest was the Canadian Chopstick Manufacturing (CCMC) plant, which was opened in Fort Nelson in 1990. Since only a portion of the aspen harvest was suitable for chopstick making, the potential for effective use of this aspen residue was a major reason in deciding to reach Pulpwood Agreement for the OSB plant.

23 The third timber supply review (TSR3) was initiated in 2003. The Fort Nelson Timber Supply Area (TSA) DFAM Group, including Canadian Forest Products Ltd (the only major licensee in the Fort Nelson TSA) and BCTS, has submitted a Timber Supply Review (TSR 3) Data Package to the BC Ministry of Forests for review in January 2004 and the Data Package was accepted on October 13, 2004. The AAC Rationale for Fort Nelson TSA was released in November 2006, available at http://www.for.gov.bc.ca/hts/tsa/tsa08/tsr3/08ts06ra.pdf, accessed May 17, 2007

24 The CCMC was opened in 1990, it utilized some of the Fort Nelson TSA's aspen timber, but later was permanently shutdown on April 1, 1997

25 Also see BC Integrated Land Management Bureau, Fort Nelson Land and Resource Management Plan Appendix II Fort Nelson LRMP Base Case 5. Forestry, available at: http://ilmbwww.gov.bc.ca/lup/lrmp/northern/frtnelsn/app2/sec5.html, accessed November 29, 2007

26 Ibid.

harvested to fulfill the licence requirement (BC Integrated Land Management Bureau 1997a). Tackama Forest Products held three forest licences (totaling 733,736m^3/year, of which 538,973m^3/year was for coniferous stands) to produce lumber, veneer and plywood at its Fort Nelson operations (BC Integrated Land Management Bureau 1997a). Tackama also purchased most of Small Business sales and smaller volumes from private timber sales and aspen residue, and operated a total milling (sawmill and plywood) of about 800,000m^3/year (an approximate mix of 85% spruce and pine and 15% cottonwood and aspen (BC Integrated Land Management Bureau 1997a). Since the acquisition of Slocan in 2004, Canfor became the only major corporate license holder in the Fort Nelson TSA.

5.7 DFAM Groups

In April 2003, a new timber supply policy was put forth so that holders of replaceable forest licences and other holders of agreements who met the prescribed requirements would together with the BC Timber Sales managers, form Defined Forest Area Management (DFAM) groups in each of the 37 TSAs and 33 tree farm licences (TFLs) in BC. Each DFAM group was supposed to jointly prepare a *Data Package* and carry out a Timber Supply Analysis at least once every 5 years, except for units that were postponed by BC Chief Forester.[27] However, in 2005, the policy was refined to allow the government to assume these responsibilities in TSAs where licensees did not wish to complete the activities (see BC MoFR Letter to DFAM Lead Licensees and Industry Associations, dated March 16, 2005). Even so, the 2006 AAC determination for the Fort Nelson TSA was completed under this Defined Forest Area Management Area (DFAM) initiative (BC Ministry of Forests and Range 2006b).

5.8 TFL 48

On top of the two Timber Supply Areas, another important forest land base in the region is the TFL 48. In December 1988, the forest licence held by Canfor was converted to the Tree Farm Licence (TFL) 48 with a land base of 661,365 hectares and an initial AAC of 0.41 million m^3/year. In BC, a TFL is long-term forest tenure between forest companies and the BC government. Canfor's TFL 48 is located in Northeast BC around the communities of Chetwynd, Hudson's Hope and Tumbler Ridge. Effective since September 20, 2001, the TFL 48 has an AAC of 0.58 million cubic metres per year. Its forest management was certified by the CSA-SFM systems (CAN/CSA Z809-96) and the ISO 14001 EMS, and was undergoing periodic audits (BC Ministry of Forests and Range 2005; KPMG 2005).

[27] See Bill 44 2003 Forest Statutes Amendment Act (No.2), 2003, sectrions10.1 to 10.5, which came into force on April 1 2005. The timber supply review responsibility of each DFAM group included: data collection, data package preparation, conducting a timber supply analysis and completing an analysis report, providing for public and First Nations reviews, and submitting digital data files.

5.9 Forest Policy in Northeast BC and its Challenges

As noted in Chapter Three, although the enactment of the *Code* (being fully implemented since June 15, 1997) and the *Code*'s requirements for biodiversity emphases, environmental and scenic values, and wildlife habitat were expected to influence timber supply decisions, the impact of the *Code* on timber supply was strategically set by the New Democratic Party's Harcourt government to be at a level of, on average, no more than 6% (BC Ministry of Forests, n. d. (a)).

Constraints set forward by new policy initiatives in the 1990s appeared to have little impact on forest operations in Northeast BC, as both LRMPs in the region assured that policy constraints could be met without compromising both consumptive and non-consumptive goals.

However, local land base factors such as protected areas and land use zoning resulting from the region's LRMP processes, problem forest types, forest succession, and forest land occupied by roads and other users, or carrying cultural values, also influenced forest management in Northeast BC.

In addition, the forest companies' priority weighting to deciduous and coniferous stands, the state of forest inventory, the progress in forest model, the choices on harvestable ages, silviculture, and utilization standards, and the government's economic and social objectives, also played a part in shaping the forest management in the region in the 90's and the early 2000's. Improvement in forest techniques, and government's advocacy for deciduous utilization giving new priority weighting to deciduous and coniferous stands seemed to partially offset the problem of decline in the coniferous inventory in the region.

The forest industry in the region generally was encouraged by the new economic value of deciduous and mixedwood stands, and the modern calculation of delivered wood costs, which took into account the costs of both deciduous and coniferous harvesting. However, such interests brought new stakeholders to the forest land base, potentially increasing the level of resource use conflict, particularly in the Fort St. John sub-region, where forest companies already faced more competing resource users

Faced with increasing resource use conflict, in particular the new arrival of the OSB plant, three leading forest companies – Canfor, Slocan, LP – along with the SBFEP, seized on the opportunity afforded by the Part 10.1 legislation to benefit from further regulatory relief on their forest planning and operations, while continuing to maintain the same level of protection on resources feature.

Chapter Six

The Fort St. John Pilot Project

This chapter presents a narrative for the Fort St. John Pilot Project's policy process, content and change. The resource dilemma in the Fort St. John TSA in the late 90's is first outlined. It is followed by an introduction to the Fort St. John Pilot Project and the pilot project's regulatory framework. The policy process, policy content, and policy change of the Fort St. John Pilot Project are then reviewed and summarized. An outline of the pilot project's effects and consequences concludes this chapter.

6.1 Resource Dilemmas in the Fort St. John Timber Supply Area (TSA)

As mentioned in the previous chapter, the Fort St. John TSA is situated in the Boreal White and Black Spruce (BWBS) Biogeoclimatic Ecosystem Classification Zone in Northeast BC. The TSA provides various resources valuable to diverse stakeholders in the area. But, due to the unique feature of its forest resources, competition from other resources users, and the emerging value of deciduous and mixedwoods, the forest industry in the Fort St. John TSA found a growing need to cope with potential controversies and conflicts.[1]

As a result, resource use in the area became more uncertain and complicated. The outlook of forest management in the Fort St. John TSA was influenced by issues surrounding First Nations' right and title, controversial regulatory rules, new resource users, and economic cycles. The increasing oil and gas interests attracted to the area and the complex configuration of resource tenures also complicated the circumstances. Forest companies in Fort St. John were thus motivated to develop an effective working relationship with other resource users to adapt to the economic and resource dynamics.

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[1] See Morellato (1998) for a court case of Halfway River First Nation vs. British Columbia (Ministry of Forests) [1997] 4 C.N.L.R. 45 ("Halfway") for dispute between a Treaty No. 8 First Nations and Canfor on a cutting permit. The petitioners asserted that the area affected by the cutting permit in question was within their traditional territory, and the permit is likely related to the infringement of aboriginal rights. Also see BC Ministry of Sustainable Resource Management (2004) forward and introduction, Section 1, p.1 for problem with the overlapping resource tenures and its emphasis on coordination and reducing conflict between tenure holders.

6.2 The Fort St. John Pilot Project

As mentioned in Chapters Three and Four, in July 1999 Part 10.1 legislation was introduced. The legislation mandates pilot projects to produce at least the equivalent protection for forest resources and resource features as that produced under the *Code* and to achieve the goals specified in the Preamble to the *Code and* higher level plans. With the new legislation, government's oversight on forest practices shifted from the "process" to "on the ground results." Public review and comment became mandatory before any Part 10.1 pilot project was approved by the Cabinet.

6.2.1 The Fort St. John Pilot Project Proposal

In late 1999, the major forest companies in the Fort St. John TSA, including Canfor, Slocan, LP, and the SBFEP (now BCTS) took the opportunity given by Part 10.1 to jointly submit a Part 10.1 pilot project proposal for the government's review (Canadian Forest Products Ltd. 1999).[2] The project was designed to experiment with results-based forest management while maintaining the same or higher levels of environmental standards.[3]

The proposed Fort St. John Pilot Project was based on three main propositions: 1) the government review and approval mechanisms could be reduced without jeopardizing environmental performance in BC forests; (2) the pilot project would result in reduced costs for the participants and the government; and (3) the pilot project would lead to outcomes that could be demonstrated to the public in a quantifiable way.[4]

6.2.2 The Participants

At the time of the Fort St. John Pilot Project submission, Canadian Forest Products Ltd (Canfor) was the major forest company harvesting conifers in the region. The company operated two sawmilling facilities in the Fort St. John TSA and acquired a majority of the TSA's coniferous AAC. Slocan Forest Products Ltd. (Slocan) held a Pulpwood Agreement (PA 12)[5] over a large portion of the Fort St. John TSA. In late 1998,

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[2] The self-financing Small Business Forest Enterprise Program (SBFEP) was introduced by BC government in the late 1980s to encourage small operators to enter the forest sector (through timber sales and specialty wood products development) for diversification and local employment. The volume of timber available for competition was doubled to give small business operators more opportunities. The timber volume made available to SBFEP came from a 5% reduction in the AAC of the major licensees. (BC Forest Resources Commission, 1991, Appendix 3, p. 13)

[3] The Fort St. John Pilot Project website http://www.fsjpilotproject.com/termsofrefSTAC.html, accessed September 12, 2007

[4] *Fort St. John Pilot Project – An Experiment in Performance Based Forest Management* , p. 4

[5] 500,000 m^3 (about 55% of the TSA's) deciduous AAC

the firm fully acquired the pulp mill of Fibreco Export Inc. (Fibreco) in Taylor. Louisiana-Pacific Canada Ltd. (LP) held a Pulpwood Agreement (PA 13) and a portion of the AAC was coming from the Fort St. John TSA. Additionally, many registrants in the Small Business Forest Enterprise Program (SBFEP, now BC Timber Sales, BCTS) also logged in the TSA.

In 2000, Slocan and LP formed a joint venture company, Slocan-LP OSB Corp., and proposed to process deciduous wood (e.g. aspen and cottonwood) in the Fort St. John TSA. In April 2004, Canfor acquired Slocan, and by the end of 2005, the joint venture company Canfor-LP OSB Corp[6] began its processing of deciduous trees harvested in the TSA.

6.2.3 The Public Advisory Group (PAG)

Beginning in 2001, the pilot project participants established a Public Advisory Group (PAG), which was comprised of representatives from important local interests[7] with the exception of the Treaty No. 8 First Nations.[8] The participants recruited, appointed, and/or replaced the PAG representatives, alternates, advisors, and facilitators. These PAG members provided input during the three phases of the pilot project process: 1) the drafting of the project proposal and the pilot project regulation, 2) the preparation of the Sustainable Forest Management Plan (SFMP), and 3) the ongoing maintenance and monitoring phase. A Terms of Reference (TOR) guided the PAG process with rules and responsibilities.[9]

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6 Originally Slocan-LP OSB Corp. later became Canfor-LP OSB Corp. after Canfor's purchase of Slocan

7 The local interests represented in the Fort St. John PAG included: commercial recreation, environment/conservation, forest contractors and workers, oil and gas industry, fishing and hunting, non-consumptive recreation, range, agriculture, private woodlots, rural communities, trapping, and urban communities. See the meeting minutes of the PAG, available at the Fort St. John Pilot Project website http://fsjpilotproject.com/pubadvise.html

8 In Treaty No. 8 First Nations' opinion, unlike other local interest groups or stakeholders, Treaty No. 8 First Nations have constitutionally protected right throughout the territory, there needs to be a separate venue for dealing with those rights and writing that into resource management planning. (Personal communication with a First Nations' representative)

9 The responsibilities given to the PAG include: (1) reviewing the proposed detailed project proposal and draft regulation, (2) reviewing comments from the general public, (3) providing advice to government on the suitability of the project, (4) suggesting to the participants on values, objectives, indicators and targets to be considered in the development of a sustainable forest management plan for the pilot project area, and (5) reviewing audits reports and annual reports. The PAG is also to meet the needs of the SFM certification process and to provide input and help ensure that the participants' forest management decisions are made as a result of informed, inclusive, and fair consultation with local people who are directly affected by or have an interest in sustainable forest management. See Terms of Reference, Public Advisory Group, Fort St. John Results Based Pilot Project, revised and approved as of October, 2004, for details, available at http://www.fsjpilotproject.com/termsofref.html, accessed September 11, 2007

6.2.4 The Scientific Technical Advisory Committee (STAC)

In addition to the PAG, the pilot project participants established a Scientific Technical Advisory Committee (STAC) to provide strategic and technical guidance for the development of the Sustainable Forest Management Plan (SFMP, see below). The STAC was a team of respected professionals who brought a diverse set of knowledge concerning the sustainable forest management. In addition to the STAC members, other specialists were invited to review the input from the PAG and make recommendations to the participants on operational strategies, methods, training, or other considerations.[10]

6.2.5 The Approval of the Pilot Project and its Regulation

The *Fort St John Pilot Project Regulation* (the pilot project regulation) became effective on December 1, 2001 and was implemented as experimentation for an improved forest practices regulatory framework. The pilot project area covered the Fort St. John TSA, which was essentially the Crown land within the Fort St. John Forest District. The Fort St. John TSA also served as a Defined Forest Area (DFA) specified under the CSA Sustainable Forest Management (CSA SFM) certification standards.

6.2.6 The Sustainable Forest Management Plan (SFMP)

Following the approval of the pilot project regulation, both the PAG and the STAC provided input on values, goals, objectives, indicators, and strategies for the SFMP in the pilot project area. The SFMP was a common forest management plan that replaced the participants' individual Forest Development Plans and contained landscape level strategies. In addition, the values, objectives and indicators that guided the forest planning and operations of the pilot project were also compiled in the SFMP as an SFM Matrix. In October 2003, the participants achieved a SFMP to the CSA standard for the pilot project area and obtained a registration under the standards of CSA CAN/CSA Z809-02 SFM for their operations in the Defined Forest Area (DFA), the Fort St. John TSA.[11] In April 2004, their SFMP was approved by the Regional Manager of the BC's Ministry of Forests and the Regional Director of the BC's Ministry of Water Land and Air Protection.

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[10] The Fort St. John Pilot Project website, http://www.fsjpilotproject.com/termsofrefSTAC.html, accessed September 12, 2007

[11] Ibid.

6.2.7 The Forest Operations Schedule (FOS), Exemption, and Data Management

The participants also prepared a single consolidated Forest Operations Schedule (FOS), which did not require approval of the government but demonstrated the locations of timber harvesting and road related activities for public information. Other major initiatives of the Fort St. John Pilot Project included the elimination of government approval requirements for all site level operational plans,[12] and a data management system which reported on resource inventory, operational planning, and performance information.[13]

6.2.8 Summary

The Fort St. John Pilot Project (FSJPP) involved major forest tenure holders in the Fort St. John TSA and the approval of a Sustainable Forest Management Plan (SFMP). The project provided the participants regulatory flexibility through the exemptions from parts of the *Code's* provisions, and the opportunity to test out landscape level strategies via the approval of the SFMP. Ongoing public involvement and forest certification were the two project elements designed to maintain or improve social and environmental performances.[14] Regular and independent audits were put in place to evaluate the project's conformity to the pilot project regulation and certification standards. Briefly, the Fort St. John Pilot Project (FSJPP) exemplified a departure from the then existing forest practices policy framework. More detailed documentation of the pilot project's policy process, policy content, and policy change is provided next.

6.3 The Policy Process of the Fort St. John Pilot Project

6.3.1 Agenda Setting

In the late 90's, Canadian Forest Products Ltd. (Canfor), the major coniferous forest licence holder in the Fort St. John TSA, was searching for a more cost-effective way to fulfill the reforestation obligations.[15] About the same time, the company anticipated that the imminent arrival of a newly formed joint-venture company, the Slocan-LP OSB Corp., which was to harvest and process the deciduous AAC in the TSA,

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[12] The *Code*'s site level plans included, for example, silviculture prescriptions, road design and construction surveys, road deactivation and stand management prescriptions.

[13] The Fort St. John Pilot Project website, http://www.fsjpilotproject.com/execsumm.html

[14] Ibid.

[15] In BC since 1987, major coniferous tenure holders were required to meet the terms of reforestation in accordance with a set of stand level regeneration standards. In simple term, the reforestation obligation required each and every hectare that was harvested be reforested with conifers to exceed a mandatory density. (BC Ministry of Forests Annual Reports and personal communication with an industry silviculturalist formerly involved in the Fort St. John Pilot Project)

could influence the forest management regime in the TSA. Specifically, the arrival of the joint venture not only potentially opened a new land base, the deciduous and mixedwood forest areas in particular, but also added new players to the territory where the existing resource tenure holders already operated. [16]

Meanwhile, Canfor's CEO David Emerson announced that the company would focus on a results-based forest management, in a way that highlighted ecosystem management, managed for longer term, and adapted to local and dynamic conditions. As stated in the company's new strategic guidelines, which were entitled "*Canfor's Forest Principles*" (June 1999), the new principles wished to reduce costs, improve public trust, and give their foresters the freedom to apply skills and knowledge to achieve management objectives. Also, cognizant of the paramount importance of public acceptance, Emerson wanted to commit the company to forest certification, hoping to retain and increase the company's market share.[17]

Subsequently, leaders of forest companies, Canfor, Slocan, and LP, in the area communicated among themselves and with the SBFEP on how to cooperatively harvest tree species, which grew on the same timber harvest land base (THLB) and met the distinct need of each company's mill. With a goal to reduce transaction costs and prevent future conflicts, they contemplated on how best to manage for various resource values under the overlapping tenure circumstance.[18] It appeared that these company leaders found coordinating at the entire land base level beneficial.

The local social-economic atmosphere seemed to favour resource sectors and such industrial coordination, and the prevailing public opinion at the time was 'What's good for business is good for the community.'[19] Workers, the majority of the public, and community leaders supported resource development in the Fort St. John area, likely due to the fact that a significant portion of employment and government revenue in the area came from the area's big three industries – agriculture, forest, and oil and gas.[20]

When Part 10.1 was enacted as a new government policy, forest companies in the Fort St. John TSA seized the opportunity to put forward a pilot project proposal for working together and managing forests under a

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16 Stands that were not predominantly (>80%) conifer or predominantly deciduous were considered mixedwood in TSR2 analysis. Coniferous mixedwood stands would have at least a 20% aspen content, whereas deciduous mixedwood stands would have at least a 20% of conifer content. (Pedersen 2003, 15) Within the Fort St John TSA timber harvest land base, there were 195,650 hectares (18.5%) of coniferous mixed-wood stands and 144,100 hectares (13.6%) of deciduous mixed-wood stands (Pedersen 2003, 15)

17 Personal communication with an industry representative who was involved in the Fort St John Pilot Project

18 Personal communications with industry representatives who were participating in the Fort St. John Pilot Project

19 Personal communication with a member of the Public Advisory Group of the Fort St. John Pilot Project

20 Community leaders viewed the establishment of an OSB plant as creating a whole new business environment on the land base (personal communication with an informant); also during a Forest Policy Review Workshop in 1999, Steve Thorlakson, the then-Mayor of Fort St. John and Chair of the Communities and Resources Committee of the Union of BC Municipalities showed his support to forest policy reform and looked forward to long-term forestry solution.

results-based regulatory framework. Specifically, these forest companies wanted to attain the latitude provided by Part 10.1 and operate collectively on their common land base, so that the costs could be reduced and the timber supply for their mills could be maintained. The sympathetic local communities and government officials in the area supported the pilot project adventure.[21]

6.3.2 Policy Formulation

Foreseeing the benefit of having the flexibility to achieve objectives, a team of well-connected and experienced forest managers discussed the possibility for the companies to work cooperatively under a Part 10.1 pilot project. They deliberated on a results-based regulatory model that they believed will be socially acceptable, environmentally sensitive, and economically aware.[22] Subsequently, each company identified a benefit in joining the endeavor and coalesced into a pilot project group (one informant called it a "Shadow Timber Company"), and jointly submitted a Part 10.1 pilot project proposal.

In their proposal, the participants made reference to the 1999 *Canfor's Forestry Principles* and the 1995 FSSC Task Force report (BC Ministry of Forests, 1995), and suggested a management model that emulated the features of forest management that were identified in the FSSC Task Force report (Canadian Forest Products Ltd., 1999, 5-6). In addition, the participants relied on a collection of information and working archetypes accumulated through their previous efforts in various forest management programs across BC, as follows:[23]

(1) the Arrow IFPA,[24] the Babine EFMPP,[25] and the Vanderhoof IFPA,[26]
(2) a network model of expert community developed in Canfor's TFL 48,
(3) a sustainable forest management framework that Canfor had been using to work with the local public advisory groups in other area,[27]
(4) the know-how of Slocan and LP on deciduous and mixedwood harvesting and processing, and
(5) the experience with the LRMP processes and the Muskwa-Kechika Management Plan.

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21 Personal communications with two members of the Fort St. John Pilot Project Public Advisory Group

22 Personal communications with three industry managers who were involved in the formulation of the Fort St. John Pilot Project

23 Personal communications with two informants from the Fort St. John Pilot Project participating companies who were involved in the early stage of the project, and with two members of the Fort St. John Pilot Project Public Advisory Group

24 Slocan was a partner of the Arrow IFPA, see Breakthrough Forest Solutions Inc. 2006, 20-1.

25 The Babine EFMPP was later converted into an IFPA and joined the Morice & Lakes IFPA. Personal communication with an industry consultant who was involved the EFMPP.

26 Canfor was a partner of the Morice & Lake IFPA and the Vanderhoof IFPA, see Breakthrough Forest Solutions Inc. 2006, 21-2.

27 The framework was influenced by a research project on how to conduct public opinion survey, later developed as the framework for Canfor's CSA-SFM certification of its TFL 48 (Chetwynd, BC) and Grande Prairie (Alberta) - personal communication with an industry representative.

This pool of experience and knowledge helped support the development of the Fort St. John Pilot Project, including its regulation and SFMP.[28] Furthermore, the concept of landscape unit planning[29] and DeLong's (2002) research information on local natural disturbance pattern[30] offered a new knowledge base for the participants to embark on a flexible approach that mimicked the natural disturbance at the landscape (or multi-block) level.

Moreover, the participants incorporated a new reforestation performance survey system (also known as multi-block approach)[31] into their SFMP to reduce cost and liability and to more efficiently protect other resource values. Also, in order to proceed with harvesting in the mixedwood area, the participants submitted a *Mixedwood Management Strategy* and a *Stocking Guidelines for Mixedwoods in the BWBS*[32] for the regeneration of mixedwoods. Despite the fact that by the late 90's 'un-mixing' the boreal mixedwoods was not considered ecologically desirable or biologically viable in some experts' viewpoint,[33] the participants decided to follow the "un-mixing" approach in the short term.

The goals and objectives of the Fort St. John LRMP and those specified for the MKMA were also incorporated into the proposed SFMP to meet the requirement of being consistent with the higher level plans. Also, with a desire for a CSA SFM certification, the participants integrated the CSA SFM Elements into the SFMP as well. The Fort St. John Pilot Project participants used the 6 Canadian Council of Forest Ministers SFM Criteria and 17 CSA SFM Elements from the Canadian Standards Association Sustainable Forest Management Standard CAN/CSA-Z809-02 and input from a Public Advisory Group to set values, objectives, indicators, and targets in the development of the SFMP (Canfor 2004, 61; also see Section

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28 Personal communications with three industry representatives, one industry consultant, two university experts, and an informant formerly involved in the early stage of the Fort St. John Pilot Project

29 This policy concept came about at the time when the Part 10.1 legislation was to be implemented. The concept was designed to expand the scope of species protection and old growth management areas (OGMAs), and to emphasize the importance of seral stage and patch size distributions. Following the release of the *Identified Wildlife Management Strategy* in February 1999, the Forest Practices Code's *Landscape Unit Planning Guide* was made available on March 25, 1999. As a coarse filter mechanism for conserving habitat for wildlife tree dependent species, the *Landscape Unit Planning Guide* [and Wildlife Tree Policy] provided directions and advices on the amount of old-growth and the number of wildlife trees to conserve within the province's various forested ecological zones.

30 DeLong's (2002) work contained guidance on management of old forest, young natural forest, patch size distribution, and stand species and structure over time for the region.

31 The new silviculture survey approach was developed by the Ministry of Forests and J.S. Thrower for TFL 49 (Riverside Forest Products). For details of the new approach, see J.S. Thrower & Associates Ltd. (2002), Martin, Browne-Clayton, and McWilliams (2002), and Martin, Browne-Clayton, and Taylor (2003; 2004).

32 In a mixedwood expert's opinion, the mixedwood strategy and stocking guideline designated the mixedwood harvesting land base into categories (e.g., deciduous, deciduous mixedwood, coniferous mixedwood, conifer forest types), then applied the free-to-grow standards, unmixed the mixedwoods and led to spruce aspen partite. (Personal communication)

33 See Hobson and Bayne 2000, Grover and Greenway 1999, and Harper and Kabzems 2003.

6.4.3.7 below for a list of CCFM criteria and the CSA SFM Elements). In their view, integrating the CSA-SFM standards into a Part 10.1 pilot project was plausible because both Part 10.1 and CSA certification emphasized public involvement, regular monitoring, and evaluation.[34] And, in the face of uncertainty, the participants featured the concept of adaptive management in their pilot project to ensure that the new system could simultaneously help decision making and improve management. The reiterated decision making process was to allow periodic adjustments so that the participants could propose necessary changes to the existing applicable performance standards. Lastly, the participants made use of the idea of professional reliance, professional accountability, and third party audits to support their planning and compliance with the SFMP, Forest Operations Schedule (FOS), and other site level plans.

To sum up, soon after their choice to jointly submit a Part 10.1 pilot project, the Fort St. John Pilot Project participants turned to a wide range of developed or emerging ideas to configure a proposal that was compatible with their interests and/or understandings in forest management. The main interests involved were the desire for forest certification and reduction in reforestation cost and liability, and an interest in a flexible and adaptive regulatory framework that provided latitude at cutblock level and allowed periodic adjustment. Key understandings that they drew upon included the new multi-block silviculture survey approach (developed in 2002-3 by the Ministry of Forests and J.S. Thrower for TFL 49 - Riverside Forest Products) and the local natural disturbance information made available by Delong (2002). The participants also subscribed to an array of new concepts to substantiate their application for the latitude provided under Part 10.1. Examples of these renewed cognitive sources that the participants consulted include the 1995 FSSC Task Force report, the 1996 BC Professional Accountability Task Force Report, the 1997 Fort St. John LRMP, the 1997 criteria and indicators of sustainable forest management released by the Canadian Council of Forest Ministers (CCFM), and the 1999 BC *Landscape Unit Planning Guide.*

From 1999 to 2004, the Fort St. John Pilot Project participants amalgamated the above mentioned interests, ideas, and information, tailored a working structure for the project, and submitted a project proposal, a draft regulation, a SFMP, and a FOS, for public review and comment.

6.3.3 Decision Making

In December 1999, a detailed pilot project proposal of the Fort St. John Pilot Project was submitted to the government by the project participants. Upon obtaining preliminary approval from the government, the participants formed a local Public Advisory Group. Representing wide-ranging local interests, the PAG was designed to fulfill a major legislature requirement: providing the public the opportunity to review and comment on the pilot project.

[34] Personal communication with a representative of Canfor

The PAG reviewed the detailed project proposal, the draft pilot project regulation, and the input from the general public. When a perceived or real conflict existed in the PAG process, the PAG members and the pilot project participants jointly decided on actions to be taken. The representatives, alternates,[35] observers, advisors, and facilitator each played a role in the PAG as specified in its terms of reference (TOR).[36] The facilitator ensured that all took part according to the TOR. Also pertinent to the TOR was a provision requiring the PAG representatives (or alternates) reaching a 'consensus' on recommendations. The 'consensus' was defined by the TOR as no representative had substantial disagreement on an issue and they would be willing to move forward. However, the TOR also allowed the 'consensus' to mean an agreement on a summary of the different perspectives concerning an issue. Disputes regarding process issues were resolved by the facilitator. On technical arguments, the PAG members identified the underlying issues, worked towards a solution, or sought compromises, alternatives and clarifications. Outstanding matters, those without a consensus, were forwarded to the pilot project participants for considerations.

In July 2001, the PAG accepted the detailed project proposal and the draft regulation. The pilot project proposal in its entirety, along with the supporting letter from the PAG that advised the government on the project's public adequacy, was submitted to the provincial resource agencies for review and approval. In December 2001, the BC Cabinet approved the Fort St. John Pilot Project proposal and the regulation.[37]

Following the approval of the project and its regulation, from late 2001 to late 2003, the PAG reviewed and commented on the proposed SFMP, which included an array of landscape level strategies and the SFMP's Sustainable Forest Management (SFM) matrix. The matrix contained values, objectives, indicators, and targets of the SFMP (Canadian Forest Products Ltd. 2004, Appendix 2). On the side, in October 2003, the pilot project participants achieved registration under the CSA CAN/CSA Z809-02 SFM for their operation in the Fort St. John TSA. In April 2004, the SFMP was jointly approved by the Regional Manager of the Ministry of Forests and the Regional Director of the Ministry of Water, Land, and Air Protection.

In April, 2002, while the SFMP was in process, a wide range of experts were invited to form a Scientific and Technical Advisory Committee (STAC) to facilitate the development of the SFMP (and its SFM matrix) and to fulfill the CSA SFM requirement. The STAC's terms of reference (TOR), membership, and role were defined at the STAC meeting.[38] In addition to advising on the SFMP and priorities of the landscape

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35 In the Fort St. John PAG meetings, each interest group was represented by a representative and an alternate; whenever the representative is not available, the alternate is expected to be present and participating in the meeting discussions.

36 Details of the Terms of Reference of the PAG are available at the Fort St. John Pilot Project website: http://www.fsjpilotproject.com/termsofref.html

37 The Fort St. John Pilot Project website, http://www.fsjpilotproject.com/termsofrefSTAC.html, accessed September 12, 2007

38 See the meeting minutes of the STAC, posted on The Fort St. John Pilot Project website, http://www.fsjpilotproject.com/termsofrefSTAC.html, accessed September 12, 2007

level strategies, the STAC also provided input related to the SFM matrix (or the CSA matrix under the CSA SFM standard) once the public and the PAG had completed their preliminary input on values, goals, objectives, and indicators.[39]

6.3.4 Implementation

On December 1, 2001, the *Fort St. John Pilot Project Regulation* (FSJPPR 278/2001) became effective (see Appendix F). The participants continued following the *Code*'s forest practices requirements until the approval of the SFMP. The *Code*'s Forest Development Plan (FDP)[40] requirements were maintained as defaults; therefore, the obligation to describe the size, shape and location of cutblocks proposed for harvesting and the approximate location of existing and proposed roads continued (personal communication with a legal consultant involved in the Fort St. John Pilot Project Regulation). When the SFMP was approved, if there was an inconsistency between a landscape level strategy contained in the approved SFMP and a provision of the *Code* or the *Code*'s regulations, the landscape level strategy prevailed (Canadian Forest Products Ltd. 2001, 8; s. 42 (2), Division 5 of Part 3, the *Fort St. John Pilot Project Regulation* FSJPPR 278/2001).

The third-party auditors, the governments, and the Forest Practices Board, periodically reviewed and audited the progress and outcomes concerning the implementation of the SFMP and site level plans under the *Fort St. John Pilot Project Regulation* (FSJPPR 278/2001). Based on these periodical reviews and audits, the participants and the PAG members revised and updated the relevant documents to improve management accordingly. Opportunities were also provided for First Nations to review and comment through the JMAC meetings with the MOA First Nations (see Chapter Five).[41]

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39 See the Fort St. John Pilot Project website, the STAC page: http://www.fsjpilotproject.com/stac.html, accessed on July 11, 2006, August 31, 2007

40 In Prince George Forest Region the FDP had been the primary consultation documents; site level plans, such as silviculture prescriptions rarely formed part of a consultation package, though from time to time First Nations requested additional information relating to a specific site, or requested additional input into a site level plan. See Canadian Forest Products Ltd., 2001, p.13

41 To the date of writing this dissertation, other than the JMAC meetings, there was no other formal process that dealt specifically with the First Nations' consultations on the pilot project (personal communications with a First Nations' representative and an informant from Canfor)

6.4 Policy Content

6.4.1 Company-Sponsored PAG as a Domain for Public Involvement

As reviewed in Chapter Four, public review and comment was one of the prerequisites of any Part 10.1 pilot project. The Fort St. John Pilot Project participants chose to form a local public advisory group (PAG) as a standing body to provide regular input to their forest planning and operation activities.[42] A wide-ranging group of local citizens sat in on the PAG meetings on a regular base and provided frequent input. Those meetings continuously provided the project managers and policymakers with public comments and advice on local issues such as biodiversity conservation, recreational activities, and cumulative impacts.

The project's PAG was a privatized mode of public processes[43] in the sense that the private sector with responsibilities for forest management on public land sponsored the local public advisory group and ran the public discussions. This mode of public process was unique because traditionally the government took the role of organizing the public processes. The decision to adopt this private-sector sponsorship reflected the participants' keenness to comply with the forest certification,[44] which required the control of public participation processes in the private sector.[45] Though the government still controlled the overall process, the pilot project participants gained more control over the public process through the formulation of the PAG and the Terms of Reference that was pertinent to the PAG.[46]

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42 In June 2000, an Open House in the City of Fort St. John was held to explain the objectives of the Fort St. John Pilot Project and to invite volunteers to participate in the PAG. During the Open House, the pilot project participants emphasized that all meetings of the PAG would be open to the public and a group of 12 – 15 members would be representing the local interests. In early 2001, a PAG representing wide-ranging local interests was formed; the PAG was briefed on their role of the PAG and the three policy processes that the PAG would review and comment on. The three policy processes of the Fort St. John Pilot Project were: 1) input to the pilot project proposal, 2) input to the SFMP/CSA process, and 3) the ongoing input/maintenance/monitoring. Membership confirmation and the drafting of the terms of reference (TOR) for the PAG followed soon after. See the meeting minutes of the PAG, posted on the Fort St. John Pilot Project website, http://www.fsjpilotproject.com/termsofrefSTAC.html

43 This form of public participation has been a trend in Canada as a key component of environment governance. See Parkins (2006) for the emergence of a de-centered and privatized mode of governance in the Canadian Forest Sector.

44 Forest certification is generally characterized as a non-state market-driven governance system, see Cashore 2002.

45 See, for example, the Canadian Standards Association Sustainable Forest Management Certification

46 Some (e.g. McCloskey 1996; Hibbard and Madsen 2003) had commented that with this privatized mode of public process, though members of the PAG could influence decision-making processes, the final decisions remained in the hands of the industry. But, in Parkins' (2006) view, 'a shift to local governance structures offer[ed] distinct advantages for state and corporate actors by providing a solution to some very real and practical challenges within contemporary society' (184). Parkins (2006) also considered that this shift "create[ed] new institutional arrangements that [could] incorporate a much larger, and often contested, array of public values into decision-making processes,' and 'provide[d] for an extension of scientific peer review to a select group of lay people" (185).

In addition to participating in the PAG, the general public could review and comment on the SFMP and the Forest Operations Schedule (FOS). The FOS maps included information on cutblocks, road construction, road deactivation, and stand tending activities.

It is worth noting that, although the PAG represented local interests, First Nations did not participate in the PAG process. In Treaty No. 8 First Nations' opinion, there needs to be a separate venue for dealing with their rights and writing that into resource management planning (personal communication with a First Nations' representative).[47] Subsequently, the quarterly meetings with the MOA First Nations became the mere possibility to communicate with First Nations on the pilot project's information and progress (personal communication with a representative of First Nations and a representative from Canfor).

6.4.2 Forest Planning

There are three layers of planning under the Fort St. John Pilot Project framework. The Forest Development Plan (FDP) remained in effect until the approval of the Sustainable Forest Management Plan (SFMP). Once the SFMP was approved, the participants would not be required to prepare their FDPs, but needed to jointly submit to the government's district manager a Forest Operations Schedule *(*FOS) that identified the proposed areas of timber harvesting and road construction. The SFMP enabled landscape level strategies to be implemented as they were developed, and specified values, objectives, indicators, and targets of forest management in the pilot project area. A site level plan could be developed without government oversight, but all plans under the Fort St. John Pilot Project had to be consistent with the FDP or, if there was no FDP in effect for the area, the SFMP and the FOS.

6.4.2.1 The Sustainable Forest Management Plan (SFMP)

The Sustainable Forest Management Plan (SFMP) for the Fort St. John Pilot Project was prepared according to the *Fort St. John Pilot Project Regulation* (FSJPPR 278/2001) and the Canadian Standards Association Sustainable Forest Management Standard CAN/CSA-Z809-02 (Canadian Forest Products Ltd. 2004, Preface). The SFMP was considered the strategic and landscape level plan for the Fort St. John Pilot Project area. In addition to public objectives and forest management issues, the SFMP also incorporated the participants' broad business objectives such as ensuring continuous delivery of reasonably priced and high quality timber, minimizing costs and maximizing value, and attaining forest management certification to maintain or increase access to resources and markets. Optimizing the net value of the mixedwoods by coordinating activities wherever practical to minimize timber harvesting and access costs was another business objective specified in the FSJPP SFMP (Canadian Forest Products Ltd., 2004, 1).

[47] However, the West Moberly First Nations were involved in the pilot project, as the communities had a shared forest license with Canfor in the Fort St. John TSA. See Canadian Forest Products Ltd. 1999, 10

Moreover, the *Fort St. John Pilot Project Regulation* (FSJPPR 278/2001) mandated consistency of the SFMP with the management objectives of the Fort St. John LRMP (FSJPPR 278/2001, Part 4, s. 35(1) (b)). The SFMP enabled landscape level strategies to be implemented as they were developed. As specified in the pilot project regulation, the SFMP had to include at least the following seven landscape level strategies (FSJPPR 278/2001, Part 4, s. 35(2)): 1) timber harvesting, 2) road access management, 3) patch size, seral stage distribution and adjacency, 4) riparian management, 5) visual quality management, 6) forest health management, and 7) range and forge management. Different from those landscape level planning processes under the *Code*, the SFMP brought in an array of resource-specific (rather than site-specific) landscape level strategies. These strategies focused on a systematic specification of values, objectives, indicators, and targets (instead of detail operational prescriptions) for the management of the particular forest resource that each landscape level strategy was concerned about.

Other aspects of the forest resources management such as reforestation, biodiversity management, soil management, water quality management, and forest protection could also be included in the SFMP as landscape level strategies (FSJPPR 278/2001, Part 4, s. 35(3)). Altogether, the approved Fort St. John Pilot Project SFMP included the seven mandatory landscape level strategies and an optional reforestation strategy, which drew on the newly developed reforestation survey system, also known as a multi-block approach (Canadian Forest Products Ltd. 2004, 35). These landscape level strategies evolved as forest inventories or technology became updated or improved. In short, the SFMP allowed some landscape level strategies to be implemented upon its approval and more strategies to be implemented over time. During the time that it took to prepare an entire suite of strategies, the public interests and the equivalency requirements of Part 10.1 were met through the continuing use of the FDP (Canadian Forest Products Ltd. 2001).

In the SFMP, the 81 resource management zones (RMZs) that were located within the project area were re-categorized into 11 landscape units and specified in the SFMP (Canadian Forest Products Ltd., 2004, Table 1 in pages 7 and 8). Objectives for each RMZ were related to each of the landscape units categorized in the SFMP (Schedule A of the FSJPP 278/2001; Canadian Forest Products Ltd. 2004, Table 2 and pages 9-10). Relative management intensity levels were then assigned to each landscape unit, based on the Fort St. John LRMP objectives, the timber management strategies, and the LRMP's biodiversity emphasis strategies (Canadian Forest Products Ltd. 2004, 8, 9, 11, 36). Accordingly, 38.6% of the project area was managed for high intensity forest management,[48] 47.6% for moderate intensity forest management,[49] 13.8% for low

[48] For enhanced timber harvesting and long term timber supply

[49] For maintaining timber harvesting and forest management opportunities and in some cases enhancing timber harvesting for a sustainable long term timer supply

intensity forest management regimes,[50] and 5% as protected areas (Canadian Forest Products Ltd. 2004, 12, and Table 4 in page 13).

6.4.2.2 Site Level Planning

Under the *Fort St. John Pilot Project Regulation* (FSJPPR, 278/2001), the approval of any site level plans (e.g., silviculture prescriptions, stand management prescriptions, road layout and design, or road deactivation prescriptions) was replaced by a system of notification (FSJPPR 278/2001, s. 20). A site level plan could be developed without government oversight, but all site level plans under the Fort St. John Pilot Project had to be consistent with the FDP or, if there was no FDP in effect for the area, the SFMP and the FOS (FSJPPR 278/2001, s. 19 (1) (b); Canadian Forest Products Ltd. 2001, 10).

Though the site level plans could be developed without government oversight, if the government requested a participant to provide a notice of a site level plan (or amendment to a site level plan), the participant had to give such a notice to the government (FSJPPR 278/2001, s. 20(4)). In that case, the participant also had to review all written comments received from resource agencies, and make necessary revisions accordingly (FSJPPR 278/2001, s. 20(5)). Alternatively, the government could notify the participant in writing not to operate on the area under the site level plan, if the government determined that the operation described in the site level plan (or amendments to the site level plan) would not adequately manage and conserve the forest resources of the area affected by the plan (FSJPPR 278/2001, s. 20(7)). The consistency of a site level plan with the FDP, or the SFMP and the FOS, would be subject to independent audit as required by the pilot project regulation, and both the government and the Forest Practices Board could inspect such consistency (FSJPPR 278/2001, Part 5 Division 2).

6.4.3 Forest Practices Standards

Forest practices under the Fort St. John Pilot Project were authorized through the FDP in effect, or, if there was no FDP in effect, the SFMP (and the accompanying landscape level strategies) in effect and the FOS that applied to the area (FSJPPR 278/2001, S. 19 (1) (b); Canadian Forest Products Ltd. 2001, 10). The following sections provide a précis of the regulatory requirements concerning key environmental aspects.

6.4.3.1 Riparian Protection

The *Fort St. John Pilot Project Regulation* (FSJPPR 278/2001) required that every participant had to ensure that the map and information of riparian classification for specific water bodies and the general objectives for riparian management zones were included in a FDP, so that a silviculture prescription could be prepared

[50] For enhancing and protecting other resource values

accordingly (FSJPPR 278/2001, s. 67 (1) (e) (xii), 67 (1) (v)). The riparian class of streams, wetlands and lakes had to be described for a proposed 'Category A' cutblock in the FDP.[51] Standards for riparian classes of streams, and minimum widths of riparian reserve zones and riparian management zones specified under the regulation were essentially the same as those specified under the *Code.*

The Riparian Management Strategies included in the SFMP addressed riparian objectives identified in the Fort St. John LRMP. These riparian strategies contained major river corridor considerations and maintained non-timber resource values, while still capturing the high timber values (Canadian Forest Products Ltd. 2004, 46, s. 4.4).[52] While addressing the protection of streambanks and stream channel stability, the strategies upheld the *Code*'s target of meeting or exceeding the minimum widths of riparian reserve zone for fish bearing (S1, S2, and S3) streams (Canadian Forest Products Ltd. 2004, 46, 47, and s.4.4; FSJPPR 278/2001Schedule D). Additionally, the riparian strategies entailed a need to conduct riparian assessments and incorporate the assessments into site level plans for protecting riparian values.[53] Limiting the extent of harvesting within watershed to manage excessive runoff at the watershed level was also specified (Canadian Forest Products Ltd. 2004, 47, s. 6.34). As a result, after November 15th, 2001, no openings exceeding one hectare in blocks within the major river corridors harvested were allowed in the pilot project area (Canadian Forest Products Ltd. 2004, 47, s. 6.22).

6.4.3.2 Logging and Road Activities

Before any commencements of timber harvesting, road construction, and stream crossing, an authorization would be required (Canadian Forest Products Ltd. 2001, 13). During the pilot project period, coniferous tenured participants could conduct harvesting operations in some merchantable height class two pine types to support their timber profile (Canadian Forest Products Ltd. 2004, Timber Harvesting Strategy #4, 38).[54] The pine harvesting was acceptable as a result of the BC Chief Forester's 1996 AAC determination, which included the contribution of small pine stands (Pedersen 1996).

The timber harvesting within the Graham River Valley would be based on the sequential clustered development, and consistent with the intent of the harvest schedule outlined in the Graham River Integrated

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51 S. 69 (1) (b) (vii), FSJPPR 278/2001, repealed through BC Reg. 103/2005; Category A cutblocks are essentially permanently approved, although there are circumstances where approval may be reversed.

52 Non-timber values specified in the Riparian Management Strategies include, for example, the integrity of the stream, wetland, or lake and associated habitats inherent in riparian areas.

53 These riparian values include, for example, streambanks, stream channel stability, riparian vegetation, and water quality.

54 From November 15, 2001 to March 31, 2006, 8% or more of the total cutblock area of coniferous blocks harvested would be in height class two pine inventory types. See Canadian Forest Products Ltd. 2004, Timber Harvesting, s. 6.52.

Resources Management (IRM) Plan.[55] Because the Graham River IRM Plan Area was identified as providing substantial forest connectivity corridors, the site level plans for harvesting activities proposed in any portion of the area were required to respect the long term primary components of those corridors to ensure consistency with the original objective (Canadian Forest Products Ltd. 2004, Timber Harvesting Strategy #9, 40).[56] In addition, any timber harvesting in the river valley area had to attain the government's agreements in advance (Canadian Forest Products Ltd. 2004, Timber Harvesting Strategy #9, 40). Within the Cypress Creek drainage, grandparented blocks and related roads would be harvested prior to any other harvesting in the MKMA. Also, for other drainages in the MKMA, a clustered harvesting plan would be submitted to the government before being included in the future FOS or FDP (Canadian Forest Products Ltd. 2004, Timber Harvesting Strategy #10, 40, s.18, s.19, and s.21).

Concerning road access management, the permanent access structures in the Fort St. John Pilot Project area caused by timber harvesting operations could only occupy up to 7% of a cutblock area.[57] But, to provide harvesting flexibility, upon the approval of the SFMP, the target for maximum area that could be occupied by permanent access structures was adjusted to 5% of the total (aggregate) area in cutblocks where harvesting was completed during an annual reporting period (Canadian Forest Products Ltd. 2004, s. 4.2, s. 6.24). Road access in the Besa-Halfway-Chowade, Graham North, Graham South, and Crying Girl had to maintain over time the primitive Recreational Opportunity Spectrum (ROS) classes. Subsequent to the FOS, a sensitivity analysis was required to be conducted to quantify the impact of any proposed development on the ROS factors; mitigating measures had to be implemented (Canadian Forest Products Ltd. 2004, Road Access Management Strategy #3, 43).

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55 The Graham River Valley covered the Crying Girl Landscape Unit and the portion of the Graham Landscape Unit. See Canadian Forest Products Ltd (2004) and Timber Harvesting Strategy #8, 39. According to Canadian Forest Products Ltd. (2004, 39-40), sequential clustered development was the scheduling of operable timber into groups of neighboring blocks with a single access, developed in sequence over the full harvest cycle. The advantages of this strategy include: (1) disturbance - the strategy confines activity and impact to as small an area as practical at any one time, (2) natural disturbance mimicry – the spaces and times of the harvest openings can simulate the fire history to the extent practical, (3) access and access management – the amount of active infrastructure at any one time can be reduced, and access control can be simplified, (4) economics – operational costs per period of time can be reduced, and (5) strategic – the scope for the implementation of adaptive management can be maximized. Refer to Canadian Forest Products Ltd. (2004, s. 6.18 and s. 6.19) for details on the indicators, the targets and the implementation for this strategy.

56 Moreover, the SFMP stated that there would be no harvesting within the permanent alluvial and non-productive/non-commercial components of the connectivity corridors. See Canadian Forest Products Ltd. (2004, s.6.20).

57 And this 7% limitation applied if there was no other applicable performance standard, see FSJPPR 278/2001, s. 30 (1)(b)

6.4.3.3 Reforestation

With respect to coniferous reforestation, if a participant was responsible for the harvesting or authorizing the harvesting, then the participant had to reforest the coniferous harvested areas during the reforestation period.[58] Prior to April 2004 (the approval of the SFMP), the coniferous reforestation had to establish well-growing crop of trees that met or exceeded the conventional stocking requirements (FSJPPR 278/2001, s. 32 (3)).[59] A minimum height requirement,[60] at least distance apart from the nearest crop tree (spacing),[61] and the least amount of growing period,[62] constituted the stocking standards. The stocking requirements were either specified in the applicable performance standards or determined in accordance with the pilot project regulation. In addition, a participant who was required to reforest a cutblock had to carry out silviculture regimes to achieve the specified target stockings (FSJPPR 278/2001, s. 32 (8)). However, in April 2004, when the landscape level reforestation strategy was approved, these conventional stocking requirements became irrelevant for areas logged after November 15, 2001 (Canadian Forest Products Ltd. 2004, Appendix 6).

Upon the SFMP's approval, an innovative yet controversial reforestation strategy, which measured tree-planting performance at landscape level, became applicable to areas harvested under the project after November 15, 2001.[63] The new reforestation strategy established targets for reforestation and provided a landscape level performance assessment method based on a measure of future volume. This new approach allowed professional foresters the freedom to vary regimes so that other natural resource values could be

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58 The reforestation period is the period determined by moving forward from the commencement date the number of years specified in the applicable performance standard, or, if there is no applicable performance standard, 15 years. See FSJPPR 278/2001, s. 32 (4).

59 With respect to restocking requirements, if the silvicultural system was not single tree selection, the harvested stand was required to be reforested to include at least the minimum number of well-growing trees specified in the applicable performance standard, or, if there was no applicable performance standard, for coniferous areas and deciduous areas, determined in accordance with Table A in Schedule F, or for mixedwood areas, established by the district manager. See FSJPPR 278/2001, s. 32 (5).

60 A well-growing crop tree was defined as having achieved the minimum height for its species specified in the applicable performance standard. The reforested coniferous area needed to be brushed and no overtopping vegetation existed as assessed at least 2 years following a chemical brushing treatment or 3 years following a manual brushing treatment, or otherwise specified in the applicable performance standard. See FSJPPR 278/2001, s. 32 (6) (a) ~ (c), and Table A of Schedule F of the FSJPPR 278/2001.

61 Prior to April 2004, the well-growing coniferous crop trees also had to be at least the distance apart from the nearest crop tree, as specified in the applicable performance standard, or if there was no applicable performance standard, as identified in the pilot project regulation The coniferous crop trees' spacing requirements specified in the pilot project regulation were: 1.5 m for coniferous areas, (b) 0.5 m for deciduous areas, and (c) 0.75 m for mixedwood areas.

62 The well-growing crop trees needed to grow on the area for a time that was at least the specified in the applicable performance standard, or if there was no applicable performance standard, nine years from the commencement of harvesting. See FSJPPR 278/2001, s.32 (6) (d), (e).

63 Areas harvested under silviculture prescription between 1987 and November 15, 2001 may also be included in the areas applicable to the landscape level reforestation strategy. See Canadian Forest Products Ltd. (2004, 53).

accommodated at the cutblock level (Canadian Forest Products Ltd. 2004, 54). In addition, feedbacks from periodic reviews would also be integrated for continuous improvement (Canadian Forest Products Ltd. 2004, s.4.8, 52-3).

According to the new approach, a cutblock previously declared as a coniferous area, a deciduous area, or a mixedwood area could be revised prior to the end of the reforestation period, and this revision could happen only if a compensating adjustment elsewhere on the landscape was done (Canadian Forest Products Ltd. 2004, s.4.8, 53). The industry foresters and participating companies were also responsible for restocking the site to meet the specified targets and prescribing and implementing changes (Canadian Forest Products Ltd. 2004, s.4.8, 53).

With the landscape level reforestation strategy, stocking for conifer crop trees was measured using a Mean Stocked Quadrant (MSQ) method (Canadian Forest Products Ltd. 2004, 53 & Appendix 6). The new approach was based on survey methods developed by the Ministry of Forests and J.S. Thrower for TFL 49 (Riverside Forest Products) for pure conifer plantations. For coniferous areas within the reforestation period, merchantable volume needed to meet or exceed a targeted volume of 95% of the predicted maximum volume (Canadian Forest Products Ltd. 2004, 59, s.6.29). Regarding species composition, the regeneration target, for conifers only, was set so that the relative proportion of spruce and pine planted annually would equal the proportions harvested annually (Canadian Forest Products Ltd. 2004, 59, s.6.28).

Regarding deciduous and mixedwood reforestation, stocking for deciduous crop trees was measured against the interim "Stocking Requirements for Deciduous Crop Trees" and the "Well Growing and Health Requirement for Deciduous Crop Trees" (Canadian Forest Products Ltd. 2004, 53, Appendix 6). Reforestation in mixedwood areas in the short term would be achieved through stratifying the area to be reforested into discrete deciduous and coniferous strata (i.e., unmixing the mixed). Mixedwood forests would be managed according to forest type distribution, and both coniferous and deciduous growing standards would be applied to the coniferous and deciduous strata respectively.

Intimate mixtures (i.e., a mixture with a more-or-less horizontally homogeneous distribution of spruce and aspen, see Comeau et al. 2005, 561) of coniferous and deciduous trees would be established on 10% of the harvested mixedwood land base as operational trials. In BC, at the time of the Fort St. John pilot project's SFMP, the well-growing standards and stocking standards for intimate mixedwood were still under development. Therefore, an interim intimate mixedwood stocking standard was prepared for operational trials under the Fort St. John Pilot Project (Canadian Forest Products Ltd. 2004, 54; BC Ministry of Forests 2001a, s.4.3). This interim stocking standard would be revised as growth and yield models further developed (Canadian Forest Products Ltd. 2004, 60). Also, because the natural regeneration of deciduous trees and artificial regeneration of conifers presented opportunities for exchanging the forest types, a

landscape level ledger system was also made available by the project participants to track the swaps to ensure a preferred distribution of forest types was maintained (Canadian Forest Products Ltd. 2004, 60).

6.4.3.4 Stand Level Biodiversity

Following the 1995 Biodiversity Guidebook, a fundamental premise for maintaining biological diversity was to implement strategies at both the landscape and stand scales (BC Ministry of Forests and BC Ministry of Environment and Parks 1995a, *Stand management to maintain biodiversity*). The project participants, adhering to the *Code*'s standards, used the wildlife trees and coarse woody debris as management components for stand level biodiversity. The total area in cutblocks that was occupied by wildlife trees (or wildlife tree patches) was required to meet the applicable performance standard (FSJPPR 278/2001, s.29 (1); Canadian Forest Products Ltd. 2004, s.6.9). If there was no applicable performance standard, at least 4% of the total cutblock area, in which harvesting was completed during a calendar year, was required to be occupied by wildlife tree (or wildlife tree patches) (FSJPPR 278/2001, s.29 (1); Canadian Forest Products Ltd. 2004, s.6.9). This performance target for wildlife tree patches remained within the range recommended by the Biodiversity Guidebook.[64] Moreover, an amendment to a site level plan or a FDP would not be allowed if the amendment would reduce the retention of wildlife trees or wildlife tree patches (FSJPPR 278/2001 ADD Aug 05/03, s. 20.4 (e)).

The total amount of coarse woody debris located on cutblocks, in which harvesting was completed, was required to meet the applicable performance standard (FSJPPR 278/2001, s.29 (2); Canadian Forest Products Ltd. 2004, s.6.6).[65] If there was no applicable performance standard, at least 50% of the estimated total amount of pre-harvest coarse woody debris would need to remain among the cutblocks in which harvesting was completed in each calendar year (FSJPPR 278/2001, s.29 (2); Canadian Forest Products Ltd. 2004, s.6.6).

6.4.3.5 Distribution of Patch Size, Seral Stage and Adjacency

The objective of the Patch Size, Seral Stage, and Adjacency Strategy in the Fort St. John Project SFMP was to maintain a natural range of variability in ecosystem function, composition, and structure. This range of variability would allow ecosystems to recover from disturbance and stress, and become capable of supporting naturally occurring species that exist within the range of natural variability (Canadian Forest

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64 See BC Ministry of Forests and BC Ministry of Environment and Parks (1995a) Biodiversity Guidebook for the recommended target for wildlife tree patches when the landscape units have been designated and the landscape level objectives have been established

65 Under the *Code* regime, stand level issues such as specific volumes, the range of piece sizes for coarse woody debris, map base reserves, and wildlife tree patches were described in the silviculture prescription. See BC Ministry of Forests and BC Ministry of Environment and Parks (1995b) Silviculture Prescription Guidebook.

Products Ltd. 2004, 9, s.4.3, Table 9). The participants were required to outline both early and mature patch sizes to control where harvesting could occur and what was left as intact mature forest over time.[66] They also had to manage for seral stage distribution[67] to organize the amounts of the various age groups present across the landscape over time. Along with managing for coarse woody debris and wildlife tree patches (as mentioned above), these practices were expected to help maintain the structural characteristics and the temporal and spatial patterns of the harvested area.

Additionally, a participant or holder of a minor timber sale licence who carried out a forest practice in the Fort St. John Pilot Project Area had to ensure that the forest practice made the adjacent areas greened-up, unless otherwise authorized by the government (FSJPPR 278/2001, s.28 (1) (b) (iv), s.97 (e)).[68]

6.4.3.6 Soil Disturbance

With respect to soil conservation, a forest practice carried out in the project area was not allowed to exceed the maximum amount of soil disturbance that was specified in the site level plan (FSJPPR 278/2001, s.30.1). The pilot project regulation generally maintained the soil conservation requirements under the *Code* (*Forest Practices Code of BC Act* s.47).

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66 The Fort St. John Pilot Project SFMP's Patch Size, Seral Stage and Adjacency Strategy defined a patch as a stand of similar-aged forest resulting from either a natural disturbance or timber harvesting. A patch represented the history of disturbance which might be caused by a single event or an aggregate of events (fires, wind, timber harvesting, pest outbreaks, or various combinations of these). See Canadian Forest Products Ltd. (2004), s.6.3, p.81. The indicators and targets for patch size specified in the SFMP were specified in Canadian Forest Products Ltd. (2004, Table 15, Table 16, s.4.3, and s. 6.3); also see FSJPPR 278/2001, s.42. The Fort St. John Pilot Project Area covers four out of the nine Natural Disturbance Units (NDUs) specified by Craig Delong (2002, 2) and corresponds to the biogeoclimatic unit of BWBS (Boreal White and Black Spruce) of Natural Disturbance Type 3 (NDT3 - Ecosystem with frequent stand-initiative events) specified in the Biodiversity Guidebook (BC Ministry of Forests and BC Ministry of Environment and Parks, 1995a, Figure 5). Each NDU could include several NDU subunits, and each NDU subunit could cover a number of landscape units (LUs) specified by the BC government. Information of geographical distribution of NDUs and LUs in the Fort St. John Pilot Project Area can be found in Canadian Forest Products Ltd. (2004, Table 12, Table 13, and Table 14). Based upon Craig DeLong's (2002) recommendations, the Fort St. John Pilot Project SFMP set the targets for each early patch size class (0~50 hectares, 51~100 hectares, 100+ hectares) and mature patch size for each NDU. It is worth noting that the patch size requirement recommended in the Biodiversity Guidebook (BC Ministry of Forests and BC Ministry of Environment and Parks, 1995a, Table 14) for alluvial ecosystem in the BWBS NDT3 was more generalized and not specifying if it was for early or mature patch size.

67 Based on DeLong's (2002), targets for natural range of seral and structural stages for different NDUs within the Fort St. John Pilot Area are specified in Canadian Forest Products Ltd. (2004, Table 12, Table 13, and Table 14, s4.3 and s.6.2) and FSJPPR 278/2001, s.42. Target for deciduous stand greater than 120 years old in Boreal Plains NDU is specified in Canadian Forest Products Ltd. (2004, Table 12, Table 13, and Table 14). It is noted that the seral stage target range for coniferous stands in the Boreal Plains NDU specified in the SMFP appears to be higher than those recommended in the 1995 Biodiversity Guidebook.

68 The FSJPPR generally maintains the green-up requirements under the *Code* , see Schedule E – Green Up, FSJPPR 278/2001, ORP s.18 (1)(s), s. 68, Code Bulletin 42, and THPR s.9, s.9(2) identified in the BC Ministry of Forests' (2001b) Forest Development Plan Guidebook, 2nd edition.

6.4.3.7 The Sustainable Forest Management Matrix (the SFM Matrix)

The participants of the Fort St. John Pilot Project took advantage of the six CCFM SFM criteria, the seventeen CSA SFM elements of CAN/CSA-Z809-02 Standard, and the PAG's input, to define values, objectives, indicators, and targets for the development of the SFMP and their forest operations on the ground (Canadian Forest Products Ltd. 2004, s.5, 61). These criteria and elements included the following as shown in Table 6.1(Adopted from Canadian Forest Products Ltd. 2004, s.5, 61):

Table 6.1 CCFM SFM Criteria and CSA SFM elements included in the SFM Matrix

CCFM Criteria	CSA SFM Critical Element
Conservation of biological diversity	• Ecosystem diversity • Species diversity • Protected areas and sites of special biological significance
Maintenance and enhancement of forest ecosystem condition and productivity	• Ecosystem resilience • Ecosystem productivity
Conservation of soil and water resources	• Soil quality and quantity • Water quality and quantity
Forest ecosystem contributions to global ecological cycles	• Carbon uptake and storage • Forest land conservation
Multiple benefits to society	• Timber and non-timber benefits • Communities and sustainability • Fair distribution of benefits and costs
Accepting society's responsibility for sustainable development	• Aboriginal and Treaty Rights • Respect for aboriginal forest values, knowledge, and uses • Public participation • Information for decision-making

The values, objectives, indicators, and targets for each of the above criteria and elements were summarized in Appendix 2 of the SFMP. In total, 61 measurable targets were specified; each target provided a measurement to the corresponding indicators, which then addressed the higher level values and objectives. Each value or objective was to tackle the dimensions of each CCFM criterion and the respective CSA SFM element. A complete comparison between the targets under the SFMP and those under the *Code* regime requires further analysis.

6.4.4 Monitoring and Evaluation

The CSA SFM forest certification standards required that records be retained for a proper length of time, and that periodic audits be carried out.[69] A qualified auditor would need to conduct periodic independent audits to examine the participants' compliance (FSJPPR 278/2001, s.0 (1)). The auditors would then submit a copy of the audit report to the participants and the government (FSJPPR 278/2001, s.50 (2) (c)). As well, the government would annually monitor each participant's performance through the audit reports, annual updates, and relevant information (FSJPPR 278/2001, s.52 (1)). From time to time the Forests Minister could also measure the relative success of the pilot project in improving the forest practices regulatory framework (FSJPPR 278/2001, s.53 (1)).[70]

6.4.5 Enforcement

The liability provisions of the *Forest Act*, the *Code*, and tenure agreements continued to apply to the Fort St. John Pilot Project participants.[71]

6.4.6 Adaptive Management & Continuous Improvement

Due to the evolution of mixedwood management, in combination with improved inventory information over time, the participants posited that modifications to the existing practice statutes and regulations at some point would be anticipated. Therefore, the approval of the SFMP by the government's regional manager, rather than by the Lieutenant Governor in Council, would sufficiently and more efficiently meet the interest of government and the pilot participants (Canadian Forest Products Ltd. 2001).

For that reason, periodical adjustments to the SFMP were allowed, and under the certain circumstances, the SFMP could be amended: 1) changes in environmental circumstance such as large fires and insect infestation, 2) new information that revealed the assumptions, targets or measures were incorrect or could be improved, and 3) changes in social values concerning the SFM criteria/standards (Canadian Forest Products Ltd. 2004, 32). Feedbacks from the periodic reviews and assessments also would help guide

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69 Part of the CSA SFM Standard is to produce an annual report on progress, performance, and appropriateness of the indicators and objectives developed for the FSJPP Area. See FSJPP SFMP, s.5, 61.

70 This assessment can be carried out by evaluating, in the pilot project area, whether the pilot project regulation meets Part 10.1 criteria, as shown in Chapter Four of this thesis.

71 The maximum administrative penalties under the *Fort St. John Pilot Project Regulation* (Schedule G) was CAN$100,000 for: 1) not ensuring that a forest practice met the prescribed requirements [FSJPPR 278/2001, s.28 (1) (e)], 2) not taking reasonable measures to mitigate any damage to the environment resulting from a contravention [FSJPPR 278/2001, s.28 (1) 28 (2)], or 3) not reforesting specified areas in accordance with the specified requirements [FSJPPR 278/2001, s.32 (3)].

adaptive management to ensure that the effective forest practices (including reforestation) regimes were implemented (Canadian Forest Products Ltd. 2004, 58).

6.5 Summary of Policy Changes

6.5.1 Policy Goals

Situated in a resource-rich region where multiple users hold several tenures over the same land base, and faced with varying aspects of potential conflicts and controversies, forest companies in the Fort St. John TSA opted for a new regulatory framework. The new system was to provide latitude for dealing with costs associated with timber harvesting and reforestation, market incentives such as certification, and other resource values under the overlapping tenure circumstance. From the participants' viewpoint, conducting the Fort St. John Pilot Project was to achieve three main goals: 1) ensure continuous supply of quality timber, 2) reduce costs, and 3) facilitate the process of forest certification. The BC government, on the other hand, wanted to experiment with an alternative regulatory framework, results-based systems in particular, while making sure that the project would maintain or improve the level of public involvement and environmental performance would not be compromised.

6.5.2 Policy Instruments

In line with the Part 10.1 legislation, the Fort St. John Pilot Project experimental system involved the use of public and government review and comment, consultations, the establishment of a regulation, exemptions, and internal and external audits and reporting as policy instruments. Additionally, the project combined the use of an operational plan (the FDP), a strategic plan (the SFMP), an information package of timber harvesting and road construction activities (the FOS), and new knowledge and techniques to further enhance the effectiveness of the policy experimentation.

In addition to higher level plans (e.g., the LRMP, the MKMA Management Plan) and the *Code*'s protection standards, the CSA SFM framework was added to provide the overall guidance in terms of values and performance objectives. Exemptions were arranged to make room for regulatory innovation. While the results-based, strategic landscape level plan was in development, to ensure the quality of the policy experimentation, default requirements were applied to guide forest planning and operations. Performance monitoring, evaluation, and enforcement were put in place. Most importantly, the SFMP and its landscape level strategies prevailed if there was an inconsistency between a landscape level strategy contained in the approved SFMP and a provision of the *Code* or the *Code*'s regulations.

Instead of the government, professionals became responsible for operational details and their consistencies with the FDP, the SFMP, the FOS, and the Part 10.1 requirements. But, the role of the Forest Practice Board specified under the *Code* continued to be applicable to the pilot project area.

6.5.3 Instrument Settings

All the *Code*'s FDP requirements continued to apply and remain as defaults. Until the government approved a plan that provided alternative performance requirements, the FDPs and site plans that were in effect immediately before the effective date of the pilot project regulation continued to be in operation.

Upon the approval of the SFMP, instead of the Natural Disturbance Types (NDTs) specified in Figure 5 of the 1995 Biodiversity Guidebook, the participants stratified the project area using the NDUs defined by DeLong (2002, 2) for their landscape level strategies. They used 4 NDUs to correspond to the BWBS Natural Disturbance Type 3 (NDT3 - Ecosystem with frequent stand-initiative events). Each NDU included subunits, and each subunit covered a number of landscape units (LUs), which were previously specified by the BC government.

The level of management intensity was assigned to each landscape unit by taking into consideration the timber harvesting strategies and the biological diversity emphases recommended by the higher level plans (e.g., the Fort St. John LRMP and the MKMA Management Plan). A clustered harvesting plan was prepared for timber harvesting within the Graham River Valley and within the other drainages in the MKMA. And, the intent of the harvest schedule outlined in the Graham River IRM Plan would be respected.

In addition, with the SFMP, the maximum permanent access structure allowed in area where harvesting was completed in the annual reporting period, was changed from **"**7% of each cutblock area" to "5% of the total aggregated cutblock area." The conventional cutblock level stocking requirements[72] no longer affected those areas logged under the pilot project after November 15, 2001. A newly developed landscape level coniferous silviculture survey system began to retrospectively apply to the pilot project area. Whether the reforestation obligation was met was determined by comparing the predicted yield (volume) with the actual yield (volume). This would provide flexibility at the cutblock level so that the prescribing forester could provide for other values at cutblock level. Natural regeneration of deciduous stands and coniferous tree-planting offered an opportunity for exchanging forest type areas; a ledger system was established to track those substitutions to ensure the maintenance of overall distribution of forest type groups. Merchantable

[72] The conventional stocking standards included the minimum number of well-growing trees, the spacing requirements, and achieving the target stocking. See Brand and Weetman (1986) for getting free-to-grow standards initiated as a silviculture criterion.

coniferous volume at landscape level had to meet or exceed the target volume (i.e. 95% of the predicted maximum volume) within the regeneration period.

An interim deciduous stocking standard was used to measure the stocking of deciduous cutblocks. In the short term, the mixedwood area was divided into discrete coniferous and deciduous strata, and the coniferous stocking standards for the coniferous areas and the deciduous stocking for deciduous areas were used to measure the stocking for mixedwood areas. For intimate mixedwood reforestation, ten percent of the harvested mixedwood area would be reforested into intimate mixture as a trial, although the well-growing standards and stocking requirements for intimate mixedwoods were still under development (Canadian Forest Products Ltd. 2004, 54). Meanwhile, an interim intimate mixedwood stocking standard was developed to measure the stocking of intimate mixedwoods.

The new patch size targets specified in the SFMP were based on local research knowledge developed by Delong (2002) and different from those for patch size recommended in the Biodiversity Guidebook, which did not specify whether the patch size target was for early or mature stands. And, generally, the targets for coniferous late seral stands in the Boreal Plains Natural Disturbance Units (NDUs) established under the pilot project were higher than those recommended in the Biodiversity Guidebook. The Biodiversity Guidebook did not specify seral stage targets for deciduous stands.

6. 6 Policy Effects

Overall, in the pilot project participants' view, the FDP, the provisions of the pilot project regulation, and the performance and audit requirements attached to CSA SFM certification, formed the core equivalency to the *Code* (Canadian Forest Products Ltd., 2001). Although the likely increasing control by major licence holders over the land base and the idea of allowing them to change management targets concerned some environmental groups (Clogg and Brewster 2000), the landscape level strategies brought about by the *Fort St. John Pilot Project* were in general viewed as a positive feature of the pilot project regulation. Unlike those started under the *Code* regime, these strategies are more resource-specific and focusing on relatively defined areas.[73]

The flexibility afforded by this project was expected to help accommodate other resource values such as deciduous fibre and wildlife habitats and improve both business and government efficiency, as evidenced by the coordination and the built relationship between volume-based coniferous and deciduous interests in the Fort St. John TSA. It helped in resolving some operational concerns/needs, reducing wood costs, taking the political pressure off the government, getting more benefits from fibre quicker, and reduced conflict in the community.

[73] Personal communication with an informant from the BC Ministry of Forests and Range

Volume-based forest tenure holders had an opportunity to coordinate at landscape level, so that their timber harvesting and road construction costs could be minimized.[74] The project also presented a policy-making venue where a local public process could be embedded in a public policy process, and a non-state governing system like forest certification could be incorporated well into a state-governing framework. Lastly, the project certainly exemplified an enthusiastic "can-do" attitude by participants where new knowledge and techniques were made applicable to field operations, modern concepts were adopted to create shared understanding, and alternative approaches were tested out on the ground. The applications of Delong's (2002) work on the region's natural disturbance patterns and the multi-block approach developed by Martin, Browne-Clayton, and McWilliams's (2002) to field management, and the adoption of resource-specific landscape level strategies (see Canadian Forest Products Ltd. 2004) were all examples of innovative approaches..

The application of stocking standards in the mixedwood area, however, concerns mixedwood experts. By designating the mixedwood harvesting land base into categories (e.g., deciduous, deciduous mixedwood, coniferous mixedwood, and conifer forest types), the strategy literately unmixed the mixedwood. This could lead to spruce aspen partite and potentially alter the forest resource feature in the region. The project participants acknowledged the issue and suggested that further research would be required for deciduous and mixedwood reforestation assessments and the procedures for managing spruce understorey also awaited improvement (Canadian Forest Products Ltd. 2004, 60).

6.7 Consequences of the Fort St. John Pilot Project

Different stakeholders often held dissimilar perspectives, each with their own optimization strategies, theories, and worldviews (Ison, Röling, and Watson 2007, 502). But, the participants of the Fort St. John Pilot Project proved that they could coordinate their work effectively and produce impressive policy outputs.

The landscape level planning, adaptive management, and a results-based regulatory framework were put in action. The reforestation and mixedwood strategies were also pressed forward in the boreal region of BC. In the end, a sense of ownership was cultivated among the PAG members and the pilot project participants. Internally, they argued, bargained, discussed, learned, and compromised; collectively, they supported and defended the process' outputs. Most importantly, the creation of the PAG and the SFMP made undertaking a Part 10.1 pilot project practicable for the volume-based timber supply area. The project not only designed and executed a results-based forest practices regulatory experiment it also demonstrated an effective model for compliance with the CSA SFM certification standards. Consequently, all of the pilot project participants

[74] Personal communications with a representative of pilot project participants

became committed to the Environmental Management System (EMS) and CSA SFM certification during the pilot project implementation period. A Forest Practices Board's (2007) audit report showing that the BCTS increased its level of management evidenced such commitments (BC Forest Practices Board 2007, 8).[75]

Because the approval of any site level plans (e.g., silviculture prescriptions, stand management prescriptions, road layout and design, or road deactivation prescriptions) was replaced by a system of notification (FSJPP 278/2001, s. 20) and once the SFMP was approved, the participants would not be required to prepare and submit their Forest Development Plan (FDP) for government approval, the pilot project decreased government intervention. On the other hand, the pilot project increased the accountability of forest professionals, as it allowed professional foresters the freedom to vary reforestation regimes so that other natural resource values could be accommodated at the cutblock level (Canadian Forest Products Ltd. 2004, 54). The professionals gained leverage in forest planning and operations and became further liable for the end results on the ground. Equally, the local public interests gained influence thanks to their institutionalized position. Through the PAG process, they became more engaged in the policy process. Along with the concept of professional reliance and professional accountability, such a results-based regulatory system appeared to have gained public trust, with the exception of First Nations.[76]

With the slow-growing nature of forests and the substantial multiple resource activities in the Fort St. John area, the bio-physical, social, and economic impacts of these unique planning designs and forest operations would require further and more systemic investigations.

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[75] In its compliance audit of forest planning and practices of the British Columbia Timber Sales (BCTS) program and timber sale licence holders in the Fort St. John Pilot Project Area, the Forest Practices Board collected and utilized third-party audit information to assist the assessment, and concluded that "the operational planning; timber harvesting; silviculture; and road construction, maintenance and deactivation carried out by BCTS and timber sale licence holders in the Fort St. John Code pilot Project area for the period April1, 2005 to September 8, 2006, complied in all significant respects with the requirements of Forest and Range Practices Act (FRPA) and the Fort St. John Pilot Regulation as of September 2006." See Forest Practices Board 2007, p. 8.

[76] Personal communications with informants; for factors enhancing public trust, see, for example, Wang and Wart (2007)

Chapter Seven

Analysis of the Part 10.1 Legislation and the Fort St. John Pilot Project

This chapter identifies crucial factors that explain policy change, based on the two chosen theoretical frameworks: the Advocacy Coalition Framework (Sabatier and Jenkins-Smith 1993; 1999) and the Policy Regime Framework (Hoberg 2001a). The Advocacy Coalition Framework (ACF) maintains that 'ideas' (or belief system) can have causal effects on policy change, while the Policy Regime Framework (PRF) considers 'ideas as a means to an end' and stresses the crucial force of 'interests-driven actor-centered power dynamics in policy making. The legislation of the *Code*'s Part 10.1 in BC and the Fort St. John Pilot Project in Northeast BC in the late 1990s are chosen as case studies.

The first portion of the chapter provides a reading of the two policy cases from the PRF perspective. It is then followed by a parallel interpretation based on the ACF perspective. Data derived from this chapter will be used to discuss the utility of each theoretical framework in explaining policy change.

7.1 Explaining from the Policy Regime Framework (PRF) Perspective

Viewing through the lens of the Policy Regime Framework (PRF), the story of Part 10.1 and the Fort St. John Pilot Project unfolded as follows.

Taking advantage of their structural power during the economic downturns in the 1990s, forest companies in BC embarked on a series of political campaigns for policy reforms. Environmental groups, government officials, and other interest groups responded in a variety of ways, each wielding its power resources and harnessing strategies to influence the policy agenda and policy outcomes, in an effort to advance their own interests. Policy actors who were involved in the Part 10.1 legislation and/or the Fort St. John Pilot Project, their concerns, power resources, and strategies in each of the case studies are identified in this portion of the chapter.

7.1.1 Actors and Their Interests and Strategies in General

Actors and their interests and strategies - in the Part 10.1policy

In the late 90's, forest companies in BC were concerned about the economic impact of the *Forest Practices Code* (the *Code*), and hoped to cut their timber harvesting costs.[1] The Council of Forest Industries (COFI) – a forest industry trade group - pointed to the KPMG report to emphasize that the *Code* caused a dramatic increase (75% in the period of 1992 - 1996) in delivered wood costs and pushed for a policy change (COFI 1997; BC Hansard 1997, June, 16(5):13777). Business elites,[2] forest workers, community leaders,[3] and the opposition party[4] all joined the forest companies' campaigns and contested the New Democratic Party (NDP) government's forest policies, and coalesced with forest professionals and the provincial government to advocate a greater reliance on professionals for forest management (BC Professional Accountability Task Force 1996). Environmentalists, on the other hand, wanted to continue and further strengthen the *Code* regime. They denied any propositions that linked forest companies' economic difficulty with the provincial forest policies,[5] arguing that the industry's economic difficulties were part of the market cycles

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1 See, for example, Appendix G record ID 121; Appendix H record D9; and Appendix I under the category of 'From Code to the Code pilot,' 'Rationale of Part 10.1,' 'Origin of the FSJPP,' 'Become involved,' 'Why results-based?'

2 Elite economists such as PricewaterhouseCoopers economist Craig Campbell noted that forest companies in BC were going deeper into debt because they were unable to attract capital. The entrepreneurship Jim Pattison too campaigned for policy change. See Palmer (1998a) and UBCM policy paper #3 (dated August 20, 1998).

3 Fort St. John Mayor, Steven Thorlakson, then Chair of the Communities and Resources Committee for UBCM, denounced the *Code* as "over three feet thick and growing," and charged "It micro-manages, over-regulates, and…added over $1 billion in costs to the industry….blaming external things like Asian flu is not going to help it get better," quoted by Hamilton (1998b). Steven Thorlakson later again stressed: "we need a forest practices code that delivers the results without the massive bureaucracy and costs," quoted by McInnes (1998). Prince George Mayor Colin Kinsley asked the government "to quit blaming others … to get down to business," and suggested the government decreasing the regulatory burden faced by companies to make BC more competitive. See Beatty & Hamilton (1998). Quesnel Mayor Steve Wallace also told journalists: "We are now the least competitive jurisdiction in North American for forestry and that's got to change." See McInnes 1998.

4 As Hon. G. Abbott, a member of the Legislative Assembly, stated: "The problem with this government [was] its reckless policy of continually adding regulatory and tax burdens on the BC forest industry ……By continually adding to the burden that [faced] the BC forest industry, what we [saw were] cumulative losses to the BC forest industry of something like $1.7 billion over the past three years.....We [saw] substantial losses year after year in the BC forest industry, and there [was] nothing in the jobs and timber accord that [was] going to change that." See BC Hansard 1999, 24 June, 16(12):13975.

5 See McInnes (1995). Also see McInnes (1998) for environmental groups' (e.g., Greenpeace, the Sierra Club of BC, Sierra Legal Defence Fund, and the BC Endangered Species Coalition) opposition to the notion of 'cutting regulatory cost', arguing that the BC forest industry's economic problem was the result of a combination of the "falldown" effect and the cyclical nature of the resource commodity markets. And, see Kennedy (1998) Hamilton (1998a) and Lush (1998b) for the concern of the executive director of the Sierra Legal Defence Fund, who worried that the regulatory changes represented a philosophical shift and rollbacks in protection of BC forests, on the streamlining of the *Code* in 1998. These environmentalists, believing that the industry's economic problem was not policy-related and acting coordinately in promoting their views, are categorized in this analysis as

compounded by the falldown effect (Hamilton 1998c). Government bureaucrats, guided by personal and organizational incentives and striving to maintain the status-quo system, chose to define the issue in narrow terms (as a results-based pilot program), trying to turn the wholesale policy problem into a question of developing a tentative model for future policy development.

Actors and their interests and strategies - in the Fort St. John Pilot Project (the FSJPP) policy

Major forest licensees in the Fort St. John TSA wanted to test a Part 10.1 pilot project to reduce operational costs and ensure continuous supply of quality timber under their overlapping tenure circumstance. They also needed to address the upcoming coniferous reforestation liability[6] and the arrival of the new Slocan-LP OSB joint venture.[7] With these interests at stake, major forest companies and the SBFEP in the region jointly formed a pilot project group to develop a flexible regulatory model to address their interests and concerns. But, the increasing control of major forest operators in the TSA and the anticipated decrease in the public oversight of site plans prompted the concern of the BC Environmental Network (BCEN) (Clogg and Brewster 2000).

7.1.2 Actors' Power Resources

7.1.2.1 Structural Power of Business - in the Part 10.1Policy

Though its revenue and employment contributions to the province fluctuated with business cycles, the forest industry's position in BC's economy could be translated into the structural advantages and power resources that Lindblom and others identify as the privileged position of business in the political system (Wilson 1998, 29; Block 1977; Lindblom 1977 & 1982). In the mid 1990s, the forest industry in BC started to slide into an economic downturn, partly due to the poor American markets for lumber and the Asian economic crisis.[8] The industry's economic problem prompted a high ranking government official to consider whether the legislation and the regulations were drafted in a way that imposed a huge economic burden on the industry.[9]

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environmental coalition. They were troubled by the *Code* being shattered for easier timber harvesting. See Canadian Press 1998.

6 Personal communication with a silviculturalist formerly working for a participating company of the Fort St. John Pilot Project

7 Personal communication with a staff member of a participating forest company of the Fort St. John Pilot Project

8 Personal communication with a former senior official of the BC Ministry of Forests

9 Ibid.

7.1.2.2 Structural Power of Business - in the FSJPP Policy

Forest companies in the Fort St. John TSA controlled a substantial portion of the investment in the area and the jobs and related economic benefits that accompanied them. Such structural power brought the FSJPP proponents the support of workers and the general public in the area, and the backing of the local government and the local officials of the BC Ministry of Forests at the early stage of project formulation.[10] The industry's structural advantage also brought about the provincial government's encouragement throughout the project development and implementation processes.[11]

7.1.2.3 Other Power Resources in Policy Change

Besides business structural power, political actors are furnished with other power resources, such as money, information, expertise, skills, membership, legitimacy, and coalition strength (Schlozman and Tierney 1986; Dowding 1991). An overview of actors' other power resources that influenced the Part 10.1 and FSJPP decisions is given in the ensuing paragraphs. A detailed breakdown of such resources for each group of actors is however beyond the scope of this analysis, in part because literature has shown that these power resources may not fully account for the policy outcomes (e.g. Pralle 2006).

7.1.2.4 Other Power Resources - in the Part 10.1Policy

Forest companies in BC in general have strong organizational capacity and access to authority, expertise, opinion leaders, and financial resources to campaign for policy reform. In addition, they possess many detailed but significant forestry technologies and information, and have access to the mainstream media and a wide range of contacts with legislative, community, and government representatives. Compared to corporations, environmental groups in BC have been relatively weaker in their overall organizational

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[10] During a Forest Policy Review Workshop in 1999, Steve Thorlakson, the then-Mayor of Fort St. John and Chair of the Communities and Resources Committee of the Union of BC Municipalities showed his support to forest policy reform and looked forward to long-term forestry solution.

[11] On January 30, 2001, upon completing the review of the BCEN comments and the FSJPP participants' response, the Joint Steering Committee (JSC) of the Ministry of Forests acknowledged that the FSJPP proposal "substantially meet the intent of Section 221.1 of the FPC and is sufficiently developed to advance to public advertising." See a BC Ministry of Forests Results Based Forest Practices Code Pilots project manager's letter, dated January 30th, 2001, to a Canfor's manager. The government project manager, on behalf of the JSC in his letter addressed to representative of the FSJPP participants, wrote: "The JSC notes that your summary comments of concern to the BCEN were *not intended to limit the authority of government*, but rather intended to point out the unique opportunities the pilot may develop" (p.1, emphasis added) and "We do however recognize the participants' assertion that the new combination of proposed regulations and the remaining FPC provide equal or better provisional protection of the environment" (p.2). With the JSC's acceptance, the FSJPP proposal was allowed to proceed with the public advertising period, which ended on April 27th, 2001.

resources.[12] Their total expenditures were fairly modest in relation to the amounts companies and company-supported associations spent on policy advocacy and public relations (Wilson 1998, 61). Furthermore, the environmental groups had experienced a certain amount of internal discord due to membership diversity, ranging from moderately reformists to fairly radical activists (Wilson 1998, 62).

7.1.2.5 Other Power Resources - in the FSJPP Policy

Forest companies behind the Fort St. John Pilot Project have significant power resources such as reputation, organizational capacity, control over technical information, internal expertise, and financial resources to contract with experts outside when desirable. In addition, with experience in a variety of forest management programs (e.g. EFMPPs, IFPAs, CSA SFM certification, deciduous and mixedwood management in the Fort Nelson TSA, and the LRMP and the Muskwa-Kechika planning tables), they had built a wide network of contacts with well-known, respected, or well-placed individuals and organizations. These experts were employed to explore how modern concepts (e.g., landscape level planning, adaptive management, professional reliance and professional accountability) and alternative forest management systems (e.g., a novel reforestation survey procedure and the CSA certification standards) could be incorporated into a regulatory framework to increase flexibility and reduce operating costs.

The technical and administrative support of the Working Group and the Scientific and Technology Advisory Committee (STAC) helped the PAG members and the FSJPP participants use the CSA SFM framework for the development of the FSJPP SFMP. As well, the companies behind the FSJPP were committed to the ISO and CSA certifications, which have been recognized by the world market. Such commitments to national and international standards bestowed credibility to the participating partners in the FSJPP. Moreover, when the FSJPP participants achieved their CSA SFM certification registration as an entity for the first time in October 2003, the registration well increased the reputation of the FSJPP group for being credible and trustworthy, thus its power resources, in its subsequent submission for the SFMP approval.

7.1.3 Actors' Strategies

While resource differences are important factors behind the agenda setting and policy change, they may not fully account for the policy outcomes. For instance, financially powerful players did not necessarily win, as shown in Pralle's (2006, 5) analysis of the Clayoquot Sound case. Section 2.3.4 of Chapter Two has pointed out how actors behave during a political action also plays an important role in agenda setting (e.g.

[12] Environmental groups in general lacked funds needed to present large-scale media advertising campaigns, to support groups of full-time lobbyists, or to finance the expenses of the volunteers who do most of the work. See Wilson, 1998, p.59

Stone 1989; Alder and Haas 1992a; Litfin 1994; Jacobsen 1995; Baumgartner and Leech 1998; Pralle 2006; Nohrstedt 2008). Hoberg's (2001a) Policy Regime Framework (PRF) also asserts that, to influence policy outcomes, political actors adopt the strategies most likely to advance their interests, appeal to widely shared values and expert authority as much as possible, and select those arguments most consistent with their interests.

Pralle (2006, 15-6) has identified three groups of conflict expansion and containment strategies: 1) issue definition strategies, 2) actor-based strategies, and 3) institutions and venues strategies. When actors attempt to raise the importance, visibility, and publicity of a problem, they tend to expand conflict surrounding the policy issue. Those who want to decrease the political significance of an issue may attempt to contain the policy issue. Framing and linking to other issues are examples of issue definition strategies. Also, actors may seek to mobilize or demobilize others in a conflict, depending on their objectives. Managing the scope of participation, labeling opponents, and encouraging conflict constitute such actor-based strategies. The following analysis describes how actors behaved in promoting their interests in Part 10.1 and the FSJPP according to Pralle's (2006) categorization of strategies.

7.1.3.1 Issue Definition Strategies

Actors use rhetoric and symbols to frame a problem, to link (or de-link) a problem to other important issues, to expand (or limit) the boundaries of a problem, and to encourage broader (or limit) ownership of problem, in an attempt to expand (or contain) a policy conflict.

Framing - in the Part 10.1 policy

Blame the Code

BC forest companies exercised various issue definition strategies in the 90's, in an effort to expand the conflict surrounding the costs of forest policies. They blamed the *Code* for stifling economic activity, defined their financial crisis in the late 90's as primarily policy-related, and demanded an end to the complicated rules surrounding the *Code*. They cited the KPMG report (KPMG, Thorau Parrin & Associated Ltd., and H.A. Simons Ltd. 1997) and espoused a causal argument that forest policies enacted in the 90's were culpable for the sector's increasing delivered wood costs.[13] The economic difficulty was portrayed as being policy-relevant rather than market-oriented. In so framing, they legitimized the

[13] According to the report, on average the cost increase attributable to non-*Code* related cost drivers was \$8.4/m^3/year, while the cost increase attributable to *Code*-related cost drivers was \$12.22/m^3/year.

industry's demand for an end to the *Code*, and prevented other solutions from coming onto the debate table.[14]

Despite the efforts of Clark's government in cutting policy costs through regulatory amendments, business elites and opposition MLA joined the industry's campaigns against the *Code* regime (Hunter and Barrett 1997). Jim Pattison, a BC entrepreneur, asserted that the biggest problem for the province was "the government's reputation of not being friendly to business" (Ingram 1998). Liberal forestry critic George Abbott regarded the NDP government as being responsible for much of the problem, stating that "The real cause of the current turmoil in the BC forest industry is the reckless policy adventures of this NDP government in the past seven years" (Hunter and Cullbert 1998). Abbott went so far as condemn the government's involvement with the forest industry: "Everything [NDP] government [had] done [had] undermined the competitive position of the BC forest industry: Stumpage rates up to three times higher than any other province, a process-oriented *Forest Practices Code* … and the unadulterated ideological nonsense embodied in the jobs and timber accord" (Hunter and Cullbert 1998).

Defend the Code

In contrast, environmental groups, including Greenpeace, the Sierra Club of BC, the Sierra Legal Defence Fund, and the BC Endangered Species Coalition, viewed the government's streamlining the *Code* as turning its back on the environment (Canadian Press 1998). Leaders of the Western Canada Wilderness Committee were incensed by the BC Premier's pro-logging policies; they went so far as dub him "Jurassic Clark, Enemy of Beautiful BC" (The Globe and Mail 1998).

Define forestry governance as a matter of professional liability

The Association of BC Forest Professionals drew on polls and task force reports and framed forest practices governance as an issue of professional reliance and professional accountability.[15] In so doing, the industry and professional foresters effectively challenged the *Code*'s basic assumption, which considered

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[14] The successional economic shortfalls of the BC forest industry in the late 90s were in fact, as Marshall (2000) argued, by and large due to the decline in demand for pulp and paper and a sharp drop in prices of newsprint during 1996 and 1997 and a failure by BC's forest companies to adequately invest in their provincial operations. See Marshall (2000) and CCPA (2000a; 2000b)

[15] An Angus Reid Poll, commissioned by the Association of BC Professional Foresters, was conducted in December 1997 among 600 British Columbians. The result revealed that three-quarters of the people surveyed agreed that changes to the *Forest Practices Code* that gave professional foresters more accountability would result in better forest practices. Jan Perry, then President of the Association of BC Professional Foresters, said to the media: "This poll tells us the public believes professional foresters have an important role in maintaining environmental standards and cutting through costly red tape," quoted by Hamilton (1998d).

government's review and approval of forestry plans as necessary to ensure adequate management and conservation of forest resources.

Frame the policy issue in narrow terms

Faced with mounting pressure to reform the *Code* on the one hand and anticipating environmental outcries on the other, elected officials and senior bureaucrats struggled to pinpoint a solution that could accommodate interests shared by all factions, including themselves.[16] They chose to leave the existing *Code* regime intact, and address the question of whether the government was regulating in the most efficient way as a technical and research issue. By treating the issue in technical and research terms, the participation and public attention surrounding the issue decreased (Pralle 2006, 17). Changes to the *Code*'s environmental standards were rejected. The policy intention became focusing on testing alternative routes in achieving the *Code*'s standards.[17]

Framing - in the FSJPP policy

Frame the FSJPP proposal with positive image

Proponents of the FSJPP favorably shaped the image of their proposal. They submitted the proposal as a socially acceptable, economically aware, and ecosystem-based forest management plan, which provided cost efficiency, ecosystem protection, and balanced resources values. Julius Juhasz, then Slocan's Vice President of Forest Resources, campaigned for the pilot project, saying: "Industry has been of the opinion that we may be able to achieve as much environmental protection, and possibly more, more efficiently if we are allowed to do our business without us going through all the practices required by the *Forest Practices Code*" (Gauthier 2000). Representatives of the project participants claimed that the new process would be more cost effective and allow them to move ahead with plans more quickly.[18] Similar to what their allies did with the Part 10.1 policy, proponents of the FSJPP referred to the 1995 FSSC Task Force Report, the 1996 BC Professional Accountability Task Force Report, and the notion of third party audits, to highlight their quest for local and professional control over forest management (Canadian Forest Products Ltd. 1999).

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16 Personal communications with two former senior government officials of the BC Ministry of Forests

17 Personal communication with a former senior government official of BC Ministry of Forests, November 2006

18 Personal communication with a senior representative of Canfor; also see reasons, concepts, opinions, concerns and effects coded in Appendix I under the category of 'Rationale of the FSJPP,' 'Why results-based?' and 'Code pilot world'

Frame the FSJPP SFMP as a learning tool

In disputing BCEN's "blank cheque" allegation (Clogg and Brewster 2000, 4) and responding to concerns over the limited scope of objectives and strategies included in the SFMP (Clogg and Brewster 2000, 3), proponents of the FSJPP characterized the proposed framework, including the SFMP, as a learning vehicle. They claimed that the proposed project continued to apply mainstream regulatory provisions when "[the] innovative and improved forest management strategies" were developed (Canfor Forest Products Ltd. et al. 2001, 5). They also argued that the project would provide an opportunity to test alternative harvesting and silviculture approaches. Once conducted, they emphasized, the results would suggest changes (Canfor Forest Products Ltd. et al. 2001, 7). In framing its SFMP as an experimental tool, the FSJPP group increased its chance of changing the scope, details, even specific objectives or targets in the SFMP without lengthy (legislative procedural) delay.

Frame the logging and reforestation issues as technical matters

Proponents of the FSJPP subsumed the logging and reforestation issues under the technical terms of mimicking the effect of natural disturbances, in an attempt to address their interests in quality timber supply and their liability in reforestation. They asserted that once approved, forest harvest and reforestation patterns in the project area would be carried out in a way that preserved biological diversity as if it was created by wildfire or other natural disturbances. In addition, the proposed SFMP made reference to specific techniques (e.g. sequential clustered harvesting) to legitimize the capturing of timber value in major river corridors. Moreover, despite the uncertain effect of "unmixing the mixedwoods" (leading to spruce aspen partite), as noted by Chief Forester Larry Pedersen (1996, 32), the FSJPP group included a *Stocking Guidelines for Mixedwoods in the BWBS* and a *Mixedwood Strategy*, which effectively continued the "unmixing the mixed" convention, to justify their harvesting and regeneration of deciduous and mixedwoods in the TSA.

Counter with negative image

On the contrary, Jessica Clogg of West Coast Environmental Law and Laurel Brewster of Sierra Legal Defense Fund, on behalf of the BCEN, critically framed the FSJPP proposal and considered the project as "[setting] an undesirable precedent for increasing control by major licence holders over the land-base…" (Clogg and Brewster 2000, 1) They regarded the proposal as a scheme to "[give the participants] themselves a monopoly over a vast area" by "[transforming] their volume-based rights into area-based rights over the whole TSA," causing significant barriers for new participants (Clogg and Brewster 2000, 1). They were also concerned about the obscurity of content requirements for site level plans and the limited

resource information made known to the public.[19] In short, representatives of the BCEN denounced the proposed framework as an attempt to free up existing regulatory requirements, to further limit resource information available to the public, to create a 'blank cheque' for the participants, and to ultimately increase control of major licence holders.

Linking (de-linking) a problem to other issues - in the Part 10.1 Policy

Link to other issues

Forest companies in BC maintained that their weak competitiveness and the considerable mill closure, job loss, and capital strike would threaten the livelihood of forest workers and forest resource towns, as well as the governments' coffers. In so doing, they connected the presumed cause of their weak competitiveness – the *Code* - to jobs, community livelihood, and government revenues, which were broadly recognized as important political issues. Nonetheless, the economic shortfalls of the industry in the late 1990s were later, as Marshall (2000) has argued, found to be due to the decline in demand for pulp and paper and a sharp drop in prices of newsprint during 1996 and 1997 and a failure by BC's forest companies to adequately invest in their provincial operations (Marshall 2000; CCPA 2000a & 2000b). The significance of the *Code's* cost issue was fallaciously increased as new constituents (e.g. workers, community leaders, and local government) became allies of the forest companies, dampening the *Code*'s image and pressing for policy action.

As Pralle (2006, 21) notes, "Advocacy groups can manipulate policy images by redrawing the boundaries around policy issues and problems." By linking their individual economic loss with the *Code* and with other important social-economic issues, forest companies in BC argued that their problem, once understood as a "local" issue, was actually a provincial one. Doing so, they gained the attention of the media, community and business leaders, and, more importantly, the elected officials. The number of groups claiming ownership of the problem increased (Rochefort and Cobb 1993). As a result, business leaders, the opposition party, local politicians, interest groups, and community leaders all advocated regulatory relief (Palmer 1998a).[20]

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[19] Any site level plan concerning silvicultural prescription, stand management prescription, and road design and deactivation, they urged, should "contain the same content as [was] legally required in these plans" (p.3). They also expected the FSJPP to "pilot an approach which eliminates the requirement that information be made legally known before there is a requirement to address it in planning." See Clogg and Brewster 2000, 3.

[20] Also see UBCM polity paper #3, dated August 20, 1998; Fort St. John Mayor, Steven Thorlakson, who was then Chair of the Communities and Resources Committee for UBCM, denounced the *Code* as "over three feet thick and growing," and charged "[the Code] micro-manages, over-regulates, and…added over $1 billion in costs to the industry….blaming external things like Asian flu is not going to help it get better," quoted by Hamilton (1998b). Prince George Mayor Colin Kinsley asked the government "to quit blaming others … to get down to business,"

Deny the links

Conversely, representatives from Greenpeace, the Sierra Legal Defence Fund, and the Sierra Club of BC urged the government not to gut the *Code* (McInnes 1998) and rejected the results-based regulation being a solution to industry's financial crisis (Press conference on 11 December, 1998). They pointed to the anticipated reduction in annual timber harvest and maintained that the cost increase in timber harvesting was in fact caused by the lessening of quality timber. They disagreed with any propositions associating the industry's economic difficulty with environmental policies (SLDF 1998; Hamilton 1998c).

Linking (de-linking) a problem to other issues - in the FSJPP policy

Link/de-link the SFMP to public values and interests

Proponents of the FSJPP strategically linked their proposal with the CSA SFM. They argued that the CSA SFM is "an internationally recognized, independent certification system that provides a superior model for public involvement compared to that required under the FSC system" and that the CSA requires registrants "to address criteria and critical elements developed by the Canadian Council of Forest Ministers, including the British Columbia minister of forests" (Canfor Forest Products Ltd. et al. 2001, 3). By linking their SFMP to the CSA, the FSJPP participants created a chance to achieve cost reduction and forest certification at once while lawfully operating under a private mode of a public participation process.

Besides, proponents of the FSJPP underpinned the opportunity to accommodate other resource values (e.g., wildlife protection and cultural heritage) provided by their landscape level logging strategy, which in effect pursued quality timber supply and aimed for a competitive forest industry in the region. Forest companies participating in the FSJPP also linked their SFMP with the notion of adaptive management, efficiency, professional reliance and professional accountability, and audits (Canadian Forest Products Ltd. 2004, 30-1, 33, 48, 53, 58, 97. 110, 135, 142, 227, 253), to legitimize their interests in flexible administrative rules, professional governance, and certification. As well, they argued that public consultation could focus on the SFMP, instead of site plans, in an effort to contain the level of conflict.

On the other hand, in the view of BCEN, the deficiencies of the proposed framework in environmental protection, outcome evaluation, and public oversight, led to a situation where "*government and the public would never know precisely where and when logging and road-building was occurring* unless notice was specifically requested by the DM (District Manager)" (Clogg and Brewster 2000, 5, emphasis added). To

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and suggested the government decreasing the regulatory burden faced by companies to make BC more competitive. See Beatty & Hamilton (1998). As well, Quesnel Mayor Steve Wallace told journalists: "We are now the least competitive jurisdiction in North American for forestry and that's got to change." See McInnes 1998.

add weights to their discontent and to expand the scope of conflict and attract allies, representatives of the BCEN also noted the absence of First Nations and general public in the crafting of the project (Clogg and Brewster 2000, 8). Against such criticism, proponents of the FSJPP pointed to their contact with existing local stakeholder groups to stress their efforts in public consultation (Canfor Forest Products Ltd. et al. 2001, 18). Wary of the uncertainty associated with First Nations' treaty rights and possible future litigation, the FSJPP group continued to offer First Nations opportunities to discuss aspects of the project and participate in the PAG process.

7.1.3.2 Actor-based Strategies

The second group of strategies categorized by Pralle (2006, 16) focuses on participation management. Actors or coalitions may try to expand (or limit) the number of participants involved in a problem, attract (or defer) prominent or reputable actors to participate in the problem, label (or breakup) contending alliances, and encourage conflict (or consensus) in hopes of expanding (or containing) the conflict.

Managing the scope of participation - in the Part 10.1 policy

Limit the number of participants

Pralle (2006, 23) suggests that actors will try to manage the attention and participation of the public. In the Premier's Cariboo- Chilcotin Economic Summit, out of some two hundred and sixty participants of the summit, only three individuals represented environmental advocacy groups.[21] When the draft Part 10.1 became available, senior government officials consulted with selected environmental groups, the West Coast Environmental Law and the BC Environmental Network (BCEN), who the officials had already cultivated a friendly relationship with. Also, by requiring pilot projects that were conducted under Part 10.1 to establish local public committees, policymakers and forest companies were able to keep a tight rein on the attention and participation of the general public (Pralle 2006, 23-4).

[21] See Appendix C of the summary of proceedings, available at http://web.archive.org/web/20010113160600/www.cariboosummit.gov.bc.ca/appendix/appendix_c.htm, accessed 20 March, 2008

Managing the conflict, or the appearance of conflict - in the Part 10.1 and the FSJPP policies

Encourage consensus, cooperation, and the appearance of them

In deliberating the Part 10.1 provisions, the Clark government encouraged consensus and cooperation in the policy debate. Similarly, in the FSJPP process, the local public process (the PAG) established by the participants of the FSJPP discouraged dissenters and conflicts.

Characterizing contests in the FSJPP policy

Reshuffle opponents

As Pralle (2006, p.24) writes, "it is not just numbers that matter; who gets involved is also important." The PAG of the FSJPP involved a key local conservationist, one of the few environmental representatives participating in the PAG process. The presence was important in offsetting the environmental coalition's opposition, because the environmental organization this individual founded was a member organization of the BCEN. Although involvement in the PAG did not necessarily warrant personal full support for the FSJPP, it might have helped the FSJPP group counteract environmental concerns, as other environmental groups might find it awkward to challenge their peers or the local collaborative processes.[22]

7.1.3.3 Institutional Strategies

The following sections analyze institutional strategies employed by actors in the Part 10.1 policy and the FSJPP policy, again using Pralle's (2006) categorization.

When Part 10.1 was deliberated, formulated, and legislated in the late 90's, it did not appear to have attracted the level of broad attention like the case of the Clayoquot Sound. Concerning the Fort St. John Pilot Project, a much larger forest land base and AAC were at stake compared to the Clayoquot Sound.[23] As well, the Fort St. John TSA was (and still is) home to parts of the world's remaining large natural frontier forests and low-access forests (Holmes 2002). Nonetheless, the FSJPP attracted little attention compared to

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[22] The conservationist agreed that there was not enough flexibility in the *Code* to give people opportunity to do things differently while maintaining some minimum standards. However, he professed that requiring landscape level strategy could be good or bad; it might be good because it provides some flexibility, but at the same time that flexibility could lead to subvert the plan (personal communication).

[23] The geographic area (4.6 million hectares) at stake was about 17 times as great as the area in Clayoquot Sound conflict (624,000 acres of forest), covering about 1.89 million cubic metres AAC per year - more than 90 percent of the Fort St. John TSA's 1996 AAC (2.015 million cubic metres per year) or 9.77 percent of the Prince George regional AAC. See Canadian Forest Products Ltd. et al. 2001, 11

the Clayoquot Sound case. Instead, a coalition of timber interests put together a logging plan for the Fort St. John TSA and the plan was relatively well received by a local public advisory group.

Through the lens of the PRF, several institutional factors could explain the relatively moderate level of environmental conflict. First, the elected official and government bureaucrats were motivated by re-election and the status-quo incentives (e.g., stock of knowledge and skill about wildlife protection, biodiversity, riparian management, and soil conservation; existing coordinated and respective relationship built under the *Code* regime) to care for the *Code*'s environmental standards. These officials had adapted to the working processes and values embedded in the *Code* framework and obtained knowledge, skills, and credibility in their specialized areas. As such, the *Code* framework had conferred on them income, power, and prestige at a personal level, and autonomy and budget at the organizational level.

The web of administrative, professional, and political networks and the complementary subjective model pertaining to the *Code* made the *Code* prone to institutional path dependence (North 1990b & 1993; Pierson 2000b). Individuals and organizations with bargaining power as a result of the *Code* framework had a crucial stake in perpetuating the system (North 1990b & 1993; Pierson 2000b).[24] Consequently, despite the industry's structural power and its use of conflict expansion strategies, the institutional constraints/incentives nonetheless encouraged the bureaucrats to safeguard the existing environmental standards.

A second factor for the moderate level of environmental conflict could be the shield effect of environmental outcry. Having witnessed the conflict over Clayoquot Sound, government officials came to appreciate that environmental protest, if not aptly addressed, could become significant political power in shaping the public sentiment and the consumer preference, and at times threatening the existing incentives and interests.[25] This perceived power of environmental outcry might have also led to the government's

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[24] A senior government official has said (personal communication): "The code was an extremely positive influence on forestry, though it added cost." One other government official however had doubted on the FSJPP, saying: " [with the new reforestation strategy] there might not be stocked trees in every acre like we have now….We are not going to know for another 10 years the outcome of this approach… it takes away the concept of well-spaced trees….. I am hoping that they are not using this increase in managed stand to justify not reforestering difficult areas." (personal communication with a Ministry of Forests staff member) Another government official contended (personal communication) on the multi-block approach: "They may not do brushing and extraordinary efforts fr difficult parts." Evidently, these government officials had developed their concepts and opinions based on knowledge and skills they obtained under the *Code* regime, signaling the presence of the status-quo system's resistance to change.

[25] A former senior official of the BC Ministry of Forests recollected: "We had valley by valley conflicts here in BC, typically in Clayoquot Sound, with all the mass protests and arrests, primarily in the coast. We had native blockades. Generally described, it was called "War in the woods." There was conflict everywhere as to how forestry was conducted in its public face, where or not it was public face."

public commitment to the *Code*'s environmental standards[26] and the consultations with environmental groups.[27]

In sum, from the institutional perspective, the status-quo's resistance to change and the environmental outcry' shield effect had led to the government's commitment to maintaining the environmental standards and the industrialists and government officials' subscribing to consultation and consensus-based policy process. These institutional factors and strategies helped control the level of environmental conflict.

7.1.3.4 Deterrence Strategies - in the FSJPP Policy

Forest companies behind the FSJPP used defaults as a deterrent against concerns over the increasing control of major licenses, stating that "Under the pilot project, licensees [would] propose operational activities in forest development plans as [was] done under the [then current] planning regime. Government [would] retain the authority to approve (or deny approval) of proposed activities" (Canfor Forest Products Ltd. et al. 2001, 3). They assured that the proposal provided equivalent protection as that of the *Code* and offered an administratively efficient model for government (Canfor Forest Products Ltd. et al. 2001, 6).

What was downplayed was the prevailing role of the SFMP: once the SFMP was approved, the landscape level strategies in the SFMP would prevail, "[i]f there [was] a conflict between a landscape level strategy contained in a sustainable forest management plan and a provision of the Act or the regulations" (Canfor Forest Products Ltd. et al. 2001, 8). In other words, when the mainstream regulatory provisions came to contradict with the SFMP, the SFMP would override the mainstream regulatory provisions. As a result of such "defaults" argument, the site level plan was allowed to be deregulated.

7.1.4 Summary from the PRF Viewpoints

The above analysis asserts Hoberg's (2001a, 14,16) proposition that, in deploying issue definition strategies, actors select those arguments most consistent with their interests, actively attempt to shape elite's and public opinion. They use symbolic manipulation (e.g., "Jurassic Clark, Enemy of Beautiful BC"), advertising campaigns (e.g., "BC forest policies threaten jobs: report" - *The Globe and Mail* 1996a; "Forestry profit to fall 25 per cent, analyst says" - *The Globe and Mail*, 1996b; and "Green policy puts MacBlo in red" - The Globe and Mail 1997), the release of research (e.g. the 1997 KPMG cost study by KPMG, Thorau Parrin & Associated Ltd, and H.A. Simons Ltd.), and focusing events (e.g. the Premier's

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[26] When the *Code* was streamlined in 1998, forest minister David Zirnhelt and environmental minister Cathy McGregor jointly assured that the environmental protection provisions of the *Code* would be upheld. See Lush 1998a.

[27] See Chapters Four & Six of this thesis for the BC government's consultations with environmental groups on the two studied policy decisions.

Economic Summit in mid 1999) to exert their influence on policymaking (Strategic Actions/Hypothesis H_{PRF-F}).

The market downturns in the late 1990s increased the business structural power of forest companies, shifted the resources and strategic opportunities of regime actors, triggered a new contest for authority, and provided the impetus for government to pursue programs/policies that favored business (Power Resources - structural power of business/Hypothesis H_{PRF-C}). The influence of ideas was manifested through interpretation-based actions of actors (Influence of Ideas/Hypothesis H_{PRF-A}; Hoberg 2001a, 16). When forest companies constructed the issue image by citing poll findings (e.g., on professional reliance), scientific research (e.g., on local natural disturbance pattern, multi-block approach), and favorable concepts (e.g., landscape level planning) that are compatible with the views of acknowledged experts, they won the attention of government officials. Similarly, by drawing on polls and task force reports, showing that the broader public became supportive of the ideas, framing forest practices governance as an issue of professional reliance and professional accountability, and using tactic of deterrence, the industry successfully achieved their desire for site plan deregulation (Public Opinion and Politicians/Hypothesis H_{PRF-B}).

In the end, the forest companies advanced their interests in cost reduction, operating flexibility, quality timber supply, control over public participation, and professional autonomy (Power Resources - Resource-rich actors/Hypothesis H_{PRF-D} and Strategic Actions/Hypothesis H_{PRF-F}). [28]

Though the broader social-economic atmosphere appeared to be sympathetic to the industry coalition,[29] due to the resistance (or path dependence) of the *status quo* and the shield effect of environmental outcry, the

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[28] As evidence shown in Appendix I under the category of 'Help address the problem encountered?': interests in mixedwood, the amount of regulations, help in resolving some operational concerns, reduced wood costs, better cooperation, peace in community, and let go of Silviculture Prescription; 'Affect your organization': got more benefits quicker; and 'Outcomes of the FSJPP': control the variables in calculating the delivered wood costs, and new ways of survey and logging

[29] At the provincial level, a new concept of professional reliability and professional accountability was transcending the old ideological framework, which presumed the government role on maintaining environmental standards. An Angus Reid Poll commissioned by the Association of BC Forest Professionals (ABCFP) and conducted in December 1997 among 600 British Columbians, showed the three-quarters of the people surveyed supported changes to the *Code* to give professional foresters more accountability. Jan Perry, then President of ABCFP, said to *the Vancouver Sun* "This poll tells us the public believes that professional foresters have an important role in maintaining environmental standards and cutting through costly red tape." See Hamilton 1998d. At the local level, the overall political context in the FSJ TSA appeared to be favorable to industrialists. A representative of urban community participating in the FSJPP PAG has pointed out: "People in Fort St. John are in favour of the changes simply because a lot of people just thought it was too much for a long time. I think it comes out as prevailing and existing attitude. A lot of people up here think what's good for business is good for the community, realizing there has to be some constraints on it. [They are] far less likely to support what they consider onerous constraints on the industry. I know [in the southern part of the province] there are a lot of

provincial government was committed to safeguard the *Code*'s environmental standards, as evidenced by Part 10.1's requirement for the equivalent protection for forest resources and resource features as that provided by the *Code*. Cautious of the latent power of the public's environmental outcry, the NDP government, seeing the upcoming electoral threats and opportunities, chose the policy direction of maintaining environmental standards while allowing experimentation of results-based framework to minimize political risk (Public Opinion and Politicians/Hypothesis H_{PRF-B}).

Also confirming the Strategic Actions/Hypothesis H_{PRF-F}, the effectiveness of government's strategy in defining the problem in narrow terms was empirically revealed. It succeeded in taking the issue of a wholesale reform down from the political agenda, but allowed some leeway for political negotiation. As well, the government's enduring the controversy surrounding the 'unmixing the mixed' practices exemplified the autonomy in imposing solutions the government enjoyed. This observation is consistent with the Power Resources – government officials/Hypothesis H_{PRF-E} that the interest of government officials (e.g. continuing the *status quo*), relative to those of other actors, is more likely to be reflected in policy outcomes (Hoberg 2001a, 10, 13). State bureaucrats obviously have interests and strategies of their own; they do not just try to achieve consensus, and they do have authority as a power resource to influence policy output.

In the case of the FSJPP, those resource-rich forest companies in the Fort St. John TSA, benefited from their control over technical information, financial resources, reputation, and experience in forest operations and certifications, organized and strategically swayed the PAG (Power Resources - Resource-rich actors/Hypothesis H_{PRF-D} & Strategic Actions/Hypothesis H_{PRF-F}). The industry group was successful in containing the conflict surrounding logging because of its choice to link the case to important values (e.g. professional accountability, local collaboration, and ecosystem dynamics) and issues (e.g. efficiency, social friction resulting from the competing resource values and resource uses). They also managed the participation of the PAG and used deterrent to achieve their interests in getting necessary support for the SFMP, which in effect was aiming at quality timber supply and reduced operating costs.

The variety of strategies demonstrated in the case studies also supports Hoberg's suggestion: actors are cognizant of the structural biases of particular contexts; they frequently adopt strategies to alter the institutional or ideational context of decisions to promote their own interests (Hoberg 1998, 9) (also see this study Chapter Two Section 2.6.1 Strategic Actions/Hypothesis H_{PRF-F}). Consequently, the problem shifted

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environmental groups rather see more direct government control than results-based approach. So I think it is a long standing attitude up here "government is too much involved." They would say they don't want government to interfere too much, compared to the southern part of the province. " (Personal communication, September 2006) The community representative's observation was backed up by a public poll showing that, except for the Lower Mainland where the environment was accorded greater priority, in all other regions of the province, residents placed as great or greater priority on a healthy forest industry (MarkTrend Research 2000).

from logging to efficiency, cost saving, trial-and-error, and mimicking nature, with the later being pushed onto the agenda. Policies were adopted in favor of logging and private control over public process, two major concerns of the forest companies. Ideas such as professional reliance and professional accountability and mimicking natural disturbances were constructed and used to form coalitions and convince policymakers and the public to deregulate site level plans.

Viewing through the lens of the PFR, the story of Part 10.1 and the FSJPP demonstrates the importance of structural power and public opinion. Elected officials are motivated to pursue initiatives that favor investment. In addition, this analysis substantiates agenda setting literature (e.g. Cobb and Elder 1983; Baumgartner and Jones 1993; Rochefort and Cobb 1993) that issue definition is frequently used by actors during a political struggle. The use of conflict control strategies explains why policy processes in both cases were directed by the dominant issue network - the provincial government and the industry coalition, as issues were framed in narrow or technical terms, problems were properly associated or disassociated with important values, and participation in the process was tactically managed.

7.2 Explaining from the Advocacy Coalition Framework (ACF) Perspective

7.2.1 Advocacy Coalitions in BC Forest Practices Policy Subsystem in the Late 1990s

In contrast to Hoberg's (2001a) Policy Regime Framework (PRF), actors in the ACF hold a three-tier belief system; they tend to join an advocacy coalition that shares their deep core or policy core belief systems. Accordingly, technical knowledge and policy-oriented learning are instrumental in the policy change process. In addition, the ACF postulates that changes in policy cores require external shocks that challenge the dominant coalition's understanding of reality. In response to shocks, the dominant advocacy coalition tries to reaffirm its beliefs to retain its status in the subsystem, while the minority advocacy coalition seizes the opportunity to seek to turn its beliefs into policies by out-learning their adversaries (Sabatier 1988 & 1993).

Viewing through the lens of the ACF, the story of Part 10.1 and the Fort St. John Pilot Project progressed as follows.

7.2.1.1 Advocacy Coalitions and Policy Brokers - in the Part 10.1 Policy Subsystem

The Code-reform advocacy coalition

Forest companies in BC and their allies considered the economic problem not as a market setback but as a result of the combination of the rule-based, burdensome *Forest Practices Code* (the *Code*) and the increasing stumpage fees. They were joined by allies[30] to promote cutting regulatory costs (Hamilton 1998e; Beatty and Hamilton 1998). These policy actors proclaimed that it would be possible to move away from the prescriptive regulatory approach, while still achieving the desired social and environmental results.[31]

The environmental coalition

Environmentalists, on the other hand, maintained that too many trees were being cut (Hunter and Barrett 1997). Greenpeace, the Sierra Club of BC, Sierra Legal Defence Fund, and the BC Endangered Species Coalition jointly argued that the BC forest industry's economic problem was the result of a combination of the "falldown" effect and the cyclical nature of the resource commodity markets (McInnes 1998). The streamlining of the *Code* in 1998 concerned the executive director of the Sierra Legal Defence Fund, who worried that the regulatory changes represented a philosophical shift in protection of BC forests (Kennedy 1998; Hamilton 1998a; Lush 1998b). These environmentalists believed that the industry's economic problem was not policy-related.[32]

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30 For example, the Council of Forest Industries (COFI), the BC Forest Alliance (BCFA), the Vancouver Board of Trade, journalists, and the Business Council of BC

31 In late 1998, more forest industry groups expressed their position in favor of a reform for cutting policy costs. The Coast Forest & Lumber Association suggested further reducing the regulatory burden of the Code. See Beatty & Hamilton (1998). Finning International contended that the province's economic problems were structural and within the power of the government to change, not entirely associated with the "isolated events" like the Asian financial crisis or the decline in global commodity prices that the Clark government preferred to blame. See Hunter 1998.

32 These environmentalists were troubled by the *Code* being shattered for easier timber harvesting. See Canadian Press 1998.

The government and policy brokers

The BC Premier Glen Clark, who led the second term of the NDP government, set out to dismiss critics on BC's forest policies, believing that BC forest industry's economic downturn was mainly due to low pulp prices and dropping in newsprint demand (Lush 1995; Canadian Press 1996). Mr. Clark affirmed that the province's forest policies would shift the rate and practices of logging toward a more sustainable direction (Hunter and Barrett 1997). However, with the April 1997 KPMG report, the government came to consider that the forest policy framework at the time, which focused mainly on environmental and ecological aspects of the forest value, might have not adequately accommodated other social and economic objectives. As a result, some senior officials of the BC Ministry of Forests played the role of what Sabatier (1988, 141) and Sabatier and Jenkins-Smith (1999, 122) termed "policy brokers," proposing to allow pilot projects to test alternative regulatory framework instead of abolishing the *Code.* [33] They tried to find some reasonable compromise that will reduce intense conflict, and to do so, they were willing to negotiate changes to the *Code*, if the dominant policy core beliefs could continue.[34]

7.2.1.2 Advocacy Coalitions, Expert Communities, and Policy Brokers - in the FSJPP Policy Subsystem

The results-based FSJPP advocacy coalition

Forest companies and BCTS participating in the FSJPP believed that there existed a cost-efficient way to achieve sustainable forest management, and that moving toward a results-based approach would be the proper direction. These participants argued that, through collaborative efforts at the landscape level, flexibility could be provided for cost-saving (and innovations), while still achieving the desired results. They professed that one plan approval (the SFMP), supplemented with the Forest Operations Schedule (FOS), could reduce delivered wood costs and maximize efficiencies, and that site level plans could be deregulated while preserving government's authority in reviewing areas of concern and prohibiting unsatisfactory operations. Proponents of the FSJPP advocated that forestry should be in line with an ecologically-based forest management paradigm that appreciated the ecological processes and adapted to local conditions. They emphasized the necessity of performance indicators, professional accountability, and forest certification.

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[33] Personal communications with former senior officials of BC Ministry of Forests

[34] Personal communications with senior officials of BC Ministry of Forests; Sabatier and Jenkins-Smith (1999, 133) provide a distinction between policy core and secondary aspects of belief systems. A provincial-wide government control and planning-oriented forest practices regulation for achieving the preamble of the *Code* could be seen as a fundamental policy position concerning the basic strategies for achieving core values within the subsystem, and therefore, a policy core. Allowing programs to test results-based framework at specific locales could be viewed as instrumental decisions and information searches necessary for improving policy core, thus a secondary aspect.

Local interest advocacy coalition – the FSJPP PAG

An assembly of local interests was organized and funded by the FSJPP participants to form the FSJPP Public Advisory Group (PAG).[35] Some PAG members were previously involved in the Fort St. John LRMP and the Muskwa-Kechika processes and familiar with the purpose and process of public involvement. People in Fort St. John thought what was good for business was good for the community; but, they also realized that there had to be some constraints on business development.[36]As such, the PAG in general supported the ideas of less government involvement in business regulation and showed willingness to engage in dialogues with proponents of the FSJPP.

The environmental coalition

The BC Environmental Network (BCEN) however considered the FSJPP proposal and draft regulation not satisfactorily meeting the criteria of Part 10.1. Representatives of the BCEN took the FSJPP proposal to task for promoting timber harvesting and control of major tenures, deficient in benchmarks and meaningful targets for measuring against stated results, and not fully taking into account public interests (e.g., resource information, opportunity for community-based forest tenure).

Expert community[37]

The Science and Technology Advisory Committee (STAC) of the FSJPP provided a network of expertise, including professors, consultants, and government officials from various disciplines.[38] In addition, experts

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35 The categories of interests included in the FSJPP PAG included: commercial recreation, environment/conservation, forest workers, oil and gas industry, fishing and hunting, range, agriculture, urban and rural communities, and trapping, etc.

36 Personal communication with a community representative sitting on the PAG

37 Peter Haas (1992, 2-5) defined and discussed the role of the epistemic communities and talked about how policy actors could learn new patters of reasoning and pursue new policy interests. An epistemic community, according to Haas (1992), is "a network of professionals with recognized expertise and competence in a particular domain and an authoritative claim to policy-relevant knowledge within that domain or issue area" (3). These experts share a set of normative and principled beliefs, causal beliefs, notions of validity, and a common policy enterprise. Haas argues that "controls over knowledge and information can lead to new patterns of behavior and prove to be an important determinant of international policy coordination" (1992, 2-3). Haas (1992) provides cases in which epistemic communities contribute in framing the issues, influencing subsequent negotiations, and bringing about policy change (5). Here the term 'expert community' rather than 'epistemic community' is used, because there isn't enough evidence to show that these experts held shared factual and value beliefs.

38 The range of disciplines involved in the STAC included: forest ecology, wildlife ecology, hydrology, biometrics/monitoring, soil science and silviculture, forest inventory/monitoring, forest estate modeling, traditional ecological knowledge, social/economics, mixedwood ecology and silviculture, and multiple accounts/trade-offs analysis. Source: Fort St. John Pilot Project website at http://fsjpilotproject.com/commmembers.html

in the areas of forest law and regulation, natural disturbance regimes, silviculture, and mixedwood management played the role in generating and distributing new information, and brought about new ways of thinking. These experts provided information, casual models, and solutions needed for policy-oriented learning and for persuading the decision-makers. Proponents of the FSJPP acquired knowledge and learned new concepts and approaches through dialogues with the STAC and other specialists.

Policy brokers

Some members of the expert communities and advocacy coalitions functioned as policy brokers during the FSJPP decision process. For example, two former government officials, providing independent consultancies on forest policy and regulations, held insight on both the government's and the industry's value and interest systems. Their principle concern was to find some realistic middle ground that would increase the possibility of a successful policy outcome.[39] These individuals were helpful in conveying new concepts and technologies in plain words and/or legal terms to various audiences, facilitating the communications between forest professionals, legislative officials, and lay persons. With their efforts, the FSJPP group developed a results-based regulatory framework that was acceptable to the PAG and the policymakers.

7.2.2 Ideas and Policy-Oriented Learning in BC Forest Practices Policy Subsystem in the Late 1990s

The ACF argues that the most important beliefs that drive actors are those in the policy core, which serve as more efficient guides to behavior than specific policy preferences in the secondary aspects (Sabatier and Jenkins-Smith 1999, 130-1). And, scholars of the ACF maintain that the policy cores and the secondary aspects of belief systems are subject to change over time, though the revision in policy core may take long period of a decade or more to occur (Sabatier and Jenkins-Smith 1999, 131-2).

According to Sabatier and Jenkins-Smith (1999, 133), the policy core covers the subsystem-wide fundamental policy positions concerning the basic strategies for achieving core values. In their view, critical aspects of policy core may include (Sabatier and Jenkins-Smith 1999, 133, Table 6.2):

- Basic value priorities;
- Proper distribution of authority between government and market;
- Proper distribution of authority among levels of government;
- Importance of various policy instruments (e.g., regulation vs. tax vs. fee vs. education);
- Ability of society to solve the problem; and/or
- Participation of public vs. experts vs. elected officials

[39] Also see Sabatier and Jenkins-Smith (1999, 122) for the definition of 'policy brokers.'

At the same time, secondary aspects of belief systems contain mainly administrative and instrumental policymaking preferences, such as the following (Sabatier and Jenkins-Smith 1999, 133, Table 6.2):

- Seriousness of specific aspects of the problem in specific locales;
- Importance of various causal linkages in different locales;
- Decisions concerning administrative rules; and /or
- Choice of information regarding specific programs

Information and ideas (or conceptual models) were brought to the Part 10.1 and FSJPP policy subsystems and exchanged by policy actors in the subsystems, in an attempt to change the dominant belief systems. The concepts of professionalism and results-based regulation were brought in by the *Code*-reform advocacy coalition in the Part 10.1 policy system, and a cost-saving blueprint was proposed by the results-based FSJPP advocacy coalition in the FSJPP policy subsystem. Consultants, researchers, journalists and expert community played important roles in the generation and dissemination of ideas, facilitating policy-oriented learning.

In keeping with the above classification, a number of concepts advocated in the studied policy subsystems can be categorized as policy cores:

- Maintaining basic value priorities as reflected in the preamble to the *Code*, including sustaining the value of forest ecology and silviculture;
- An emphasis on the ability of industry professionals vs. government officials in solving the forest management problem; and
- The establishment and functioning of the PAG in promoting a greater role of the public vs. government officials in policy deliberation.

On the other hand, an array of notions brought to the studied policy subsystems could be grouped as secondary aspects of belief systems:

- The importance of cooperation in managing forest in Northeast BC (addressing specific aspects of resource use problem in the region);
- Site plans to be exempted from government approval requirement (a revision of the priority of government intervention in aspects of forest planning);
- The results-based (vs. procedure-based) SFMP (a changing priority in aspects - procedures vs. results - of forest planning, and trusting the ability of professional foresters in solving forest operation problem on the ground);

- Using local information and mimicking the effect of natural disturbance (updating the information and techniques utilized in specific programs); and
- The recognition of mixedwood-dependent interests (a revision regarding the causal linkages of mixedwood management in Northeast BC)

The following sections trace ideas, the extent of informed debate, the presence of professional forum, and the extent of policy-oriented learning surrounding the two policy cases.

7.2.2.1 Ideas and Policy-Oriented Learning Surrounding the Part 10.1 Policy Decision

Professional accountability and professional reliance – a proposed new policy core

Members of the Professional Accountability Task Force suggested adopting a system of giving greater recognition of professional foresters' rights to practice and professional accountability to reduce delays.[40] They believed such a greater recognition would be fundamental to the success of forest planning review system (BC Professional Accountability Task Force 1996, 5-6).[41] The concept of '*professional accountability and professional reliance*' was well received by the public.[42] Since the concept was to promote the ability and rights of forest professionals in problem-solving, it could be categorized as a proposed alternation of a policy core.[43]

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40 In February 1996, the Association of British Columbia Professional Foresters (ABCPF), the Ministry of Forests (MOF), and the Council of Forest Industries (COFI) established the Professional Accountability Task Force (the "Task Force"), which included nine registered professional foresters and a secretariat with legal background. See BC Professional Accountability Task Force, 1996, iii, 21

41 "There must be a change in the 'culture and philosophy' currently associated with SP (Silviculture Prescription) Processes such that standards of preparation and review resulting in approval rather than rejection become the norm," the BC Professional Accountability Task Force (1996, 6) argued. In its view, a change in 'culture and philosophy' can be achieved through: a greater recognition of the professional forester's right to practice; and greater reliance on his/her professional obligations of competence, independence, integrity, and accountability (BC Professional Accountability Task Force, 1996, 6). The Task Force was particularly concerned with the then culture of polarization between "Ministry foresters" and "industry foresters," contending: "While it is legitimate for a professional forester to promote the interests of his or her employer, and while differences of professional opinion and healthy debate are encouraged, *a forester's Professional and Ethical Obligations are paramount to all others*" (BC Professional Accountability Task Force, 1996, 7, emphases added).

42 An Angus Reid Poll, commissioned by the Association of BC Professional Foresters, was conducted in December 1997 among 600 British Columbians. The result revealed that three-quarters of the people surveyed agreed that changes to the *Forest Practices Code* that gave professional foresters more accountability would result in better forest practices. Jan Perry, then President of the Association of BC Professional Foresters, said to the media: "This poll tells us the public believes professional foresters have an important role in maintaining environmental standards and cutting through costly red tape," quoted by Hamilton (1998d).

43 See section 7.2.2 above and Sabatier and Jenkins-Smith (1999, 133) for the classification of the policy core beliefs and the secondary aspects of beliefs

A results-based code – a proposed new policy core

The ideas of '*cutting regulatory cost*' and '*a results-based code*' were promoted by a *Code*-reform advocacy coalition. Owing to the effect of perceptual filtering, these ideas at first brought about some minor adjustments in administrative rules and statutory revisions in 1997 and 1998 - what Sabatier and Jenkins-Smith (1999, 133) would classify as 'secondary aspects.' With the industry's prolonged economic loss and continuing advocacy efforts, the concepts were later taken on by the Ministry of Forests and introduced in its discussion paper in 1998, signaling belief shifts concerning the policy core.

With reports indicating significant increase in logging cost,[44] concerns were raised about the costs of forest policy.[45] They prompted a KPMG study on logging cost, which subsequently concluded that on average the logging cost increase attributable to the *Code* ($12.22/m^3) was higher than anticipated ($5/m^3).[46] The finding backed previous analyses' claim that the *Code* caused a significant increase in delivered wood costs.

Streamlining the Code

The cost data challenged the efficacy of the *Code* and motivated the BC provincial government to seek quality data to defend, leading to a dynamic interaction that fits the model of analytical debate depicted by Sabatier (1988, 153). Though the notion of '*high regulatory cost*' became shared by widespread policy actors who joined the *Code*-reform advocacy coalition to promote '*cutting regulatory costs,*' without a consensus between the *Code*-reform advocacy coalition and the environmental advocacy coalition, the provincial government only took on some aspects of the *Code*-reform advocacy coalition's beliefs and streamlined the *Code*, restricting change to secondary aspects and keeping the policy core intact.[47]

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44 A report, entitled *Industry on the Brink*, on the state of the BC forest industry was presented at a FSSC meeting and a Price Waterhouse report indicating logging cost up from $62/m^3 in 1992 to $106/m^3 in 1996 was released. The Price Waterhouse became the PriceWaterhouseCoopers since 1998, a Big Four Auditors and an international financial and technology consulting company.

45 Scholars also delivered logging cost estimates, indicating that the *Code* was costing companies additional $600 million a year, referred by *The Globe and Mail* (1996c). These findings and anecdotal evidences prompted the Forests Minister David Zirnhelt to commission a study on factors affecting logging cost in the province. See Lush 1997a.

46 The non-*Code* related cost drivers attributed $8.4/m^3 cost increase. See KPMG & Parrin, Thorau & Associated Ltd. 1997.

47 Logging and mill worker unions, believing that the then forest policy would impair industry's profits and lead to considerable layoffs, supposed employment would be maintained or increased through cutting regulatory costs. See Lush 1997b. In 1997, the *Code* was streamlined to remove layers of planning requirements and allow greater recognition and reliance on the professional foresters. In April 1998, the *Code* was again amended to cut the planning paperwork in half and shift more responsibility to the forest companies. Such changes in policy preference regarding administrative rules and regulations are, as Sabatier and Jenkins-Smith (1999, 133) have noted, the secondary aspects of a belief system.

The BC government, adhered to the command-and-control principle embedded in the *Code* and having already coalesced with a variety of social and environmental groups based on the policy core, stood resolute against the idea of putting an end to the *Code*.[48] This echoed Sabatier and Jenkins-Smith's (1999, 123) prediction on perceptual filtering that "coalition members will resist information suggesting their deep core or policy core beliefs may be invalid and/or unattainable…"

Experience of other jurisdictions and new economic data

In 1998, when the BC forest industry continued suffering economically, the idea of '*a goal- and results-based code*' with a *higher level of professional reliance* was promoted by the *Code*-reform advocacy coalition, which was then joined by community leaders and business organizations (Lush 1998c). By referring to the successful policy experience of other jurisdictions, the *Code*-reform advocacy coalition persuaded the BC Financial Minister Joy MacPhail to consider taking governmental actions to address the problems.[49] The Business Council of BC, representing hundreds of enterprises in BC, supported MacPhail's proposal,[50] which was still restricting the policy change to the secondary aspects. Though MacPhail went further to acknowledge that BC had structural problems, the BC Premier Glen Clark began contemplating both regulatory and non-regulatory solutions (Constantineau 1998).

Policy-oriented learning across the belief systems of the Code-reform coalition, the government, and the public - the 1998 Forests Ministry's Discussion Paper

Evidence shown so far supports Sabatier's (1988, 155) assertion that policy-oriented learning within a belief system or between similar belief systems is relatively unproblematic, while such learning across competing belief systems often requires assistance of favorable conditions, which seemed wanting at that time. The conceptual discrepancy between the *Code*-reform advocacy coalition and the environmental

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48 The Clark government insisted on the importance of environmental and other social values that were protected by the *Code* and the role of these values in sustaining the need of current and future generations. See Lush 1998a; Canadian Press 1997; Lush 1997c.

49 As the province's budget deficits and decline in investment (external shocks) continued, Fazil Mihlar, director of regulatory studies at the Fraser Institute, suggested lessons from Ontario about how to succeed in attracting jobs and investment. Among those recommended was again the reduction in government regulations. See Mihlar 1998. BC Finance Minister Joy MacPhail later announced to implement a policy, known as the 'business lens' (or the 'business impact test) that would consult industry before introducing any new legislations or regulations, while the government developed a new economic strategy to deal with the weakened industry and help achieve the job creation target. See Beatty 1998.

50 Jock Finlayson, vice-present of the Business Council of BC, noted that neighboring jurisdictions (e.g., Alberta, Saskatchewan, Manitoba, Washington and Oregon) were enjoying positive economic growth, urged the government to provide policy solutions to BC's recession. Finlayson expounded: "Our problem is not Asian or the temporary dip in commodity prices … We have made the BC forest industry uncompetitive through government policy – which includes land-use decision making, stumpage rates, the *Forest Practices Code*, and the [corporation] capital tax," quoted by Constantineau (1998).

coalition concerned the basic strategies for achieving the goal of the *Code*, a core element of the competing coalitions.

In late 1998, the government deliberated that a change in policy core might be necessary, as shown in a Forests Ministry's discussion paper, entitled '*Streamlined Planning Initiative: Moving Towards a Results-Based, Incentives-Driven Code.'* This discussion paper hinted at a full swing of the *Code*. It drew attention to the faulty assumption that the 1995 *Forest Practices Code* was based upon, showing a sign of change in the government's policy core beliefs, where the fundamental positions concerning the basic strategies for achieving core values appeared to have shifted (Sabatier and Jenkins-Smith 1999, 133). The discussion paper proposed that forest companies would no longer need to submit plans of silviculture prescriptions, roads and bridges layouts, and other aspects of forest operations for government review and approval.[51] The BC Ministry of Forests' perception concerning the ability of professional foresters in solving the problem seemed also updated, adding another sign of change in policy core (Sabatier and Jenkins-Smith 1999, 133).

Furthermore, the discussion paper foresaw a transformational role of public servants. Government staffers would no longer be working long hours ensuring details of the *Code* being complied. Instead, they would be conducting occasional audits to make certain that the companies were keeping up with their commitment (Palmer 1998b), suggesting yet another shift in the policy core – concerning the distribution of authority between government and the market (Sabatier and Jenkins-Smith 1999, 133). In addition, more authority would be granted to district forest managers in deciding whether to exempt a company from the *Code*'s rules (Palmer 1998b). Forest companies would benefit from reduced costs and greater flexibility, and government agencies could focus on field-level activities and strategic planning processes (Palmer 1998b). With dialogues and information exchange between the *Code*-reform advocacy coalition and the government officials, a new collective understanding concerning the solution was attained and reflected in the Ministry's 1998 discussion paper.

With these changes in policy cores, the ideas of '*cutting regulatory cost*' and '*a results-based code*' later led to the Part 10.1 policy in 1999. The new policy was to experiment results-based regulatory framework, to emphasize the ability of professionals (vs. government officials) in solving the forest management problem, and to promote a greater role of the local public (vs. government officials) in policy deliberation.

[51] "They'd merely need to keep those details on file and demonstrate that their plans were undertaken with the advice of a professional forester," wrote Palmer (1998b).

Environmental values and investing in sustainability

The environmental advocacy coalition promoted '*environmental values and investing in sustainability,*' but were not successful in swaying the policymakers away from streamlining the *Code*. As mentioned, contrary to the *Code*-reform advocacy coalition's causal argument, environmental groups viewed the additional stumpage fees and the costs of complying with the *Code* "long overdue investments in economic sustainability" (Gallon 1997). They disputed the alleged causal connection between forest policy and the industry's economic downturns, pointing out the fact that the number of endangered species in Canada climbed to 264 in 1997 from 17 in 1978 (Duffy 1997).

Some environmental organizations showed strong opposition to the release of the 1998 Forests Ministry's discussion paper (a proposal of a results-based code), exemplifying a conflict in policy core beliefs.[52] By pointing to the anticipated reduction in annual timber harvest, they claimed that the cost increase in timber harvesting was in fact caused by the lessening of quality timber. The Sierra Legal Defence Fund (SLDF), drawing on its own report *Profits or Plunder* (SLDF 1998), which tracked the business cycle of seven forest companies since 1975, argued that a policy change for the industry during business downturns would not be necessary (Hamilton 1998c).

Policy-oriented learning across the Code-reform coalition and other environmental groups

Though there were external shocks such as economic downturns, with a conflict surrounding policy cores, policy-oriented learning across environmental groups and the *Code*-reform coalition was unlikely to take place, as Sabatier and Jenkins-Smith (1999, 124) have suggested. Nonetheless, other environmental organizations chose to engage in dialogues with a variety of private and public agencies, while avoiding direct conflict in policy cores.[53] According to Jim Cooperman, the BC Environmental Network (BCEN) was given fair opportunities for direct dialogues with government officials on policy issues.[54] When the government streamlined the *Code* in terms of secondary aspects in 1997-1998 and again in 1999, these environmental organizations - different from the Greenpeace and the SLDF - showed no strong oppositions.

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52 At a press conference on December 11, 1998, representatives from the Greenpeace and the Sierra Club of BC contended that such changes (toward a results-based code) would not solve the industry's financial crisis, as the problem was a result of the combination of the "falldown" effect and the cyclical nature of commodity market. See Hamilton 1998c. The Sierra Legal Defence Fund was renamed as Ecojustice Canada since September 2007.

53 Despite cognitive differences with the *Code*-reform advocacy coalitions, some environmentalists in BC, the BC Environmental Network (BCEN) in particular, which included several Chapters of the Sierra Club of Canada and many other provincial and local environmental organizations, were willing to engage in direct dialogues with business stakeholders and policymakers on the reform proposals.

54 As Haysom (1997) noted, Jim Cooperman of the BCEN believed the majority of environmental groups, represented by the BC Environmental Network, compared to Greenpeace, had "pretty good" access to government ministers in the late 1990s. Cooperman (n. d.) later recalled that they had opportunities for direct consultation with government decision-makers, and they also shared information with the public through educational campaigns.

From the ACF's viewpoint, two possible reasons may explain BCEN's not acting against the streamlining of the *Code*. First, these environmental organizations held close policy core beliefs with the government and even some forest companies, in that important social and environmental values safeguarded by the *Code* needed to be preserved, but some secondary aspects of the *Code* policy could be modified.[55] Through repeated interactions, a common perspective on the policy problems and solutions was developed, signaling policy-oriented learning across the BCEN, the government, and some members of the *Code*-reform advocacy coalition (Cooperman, n.d.). Second, it might also be that some core members of the government played the role of "policy brokers," who held moderate beliefs, focused on reducing the intense of conflicts, and brought to successful negotiations.[56]

Testing the results-based code through pilot projects

The external perturbation of economic downturns motivated the *Code*-reform coalition to deploy resources to collect data/evidence and challenge the belief system embedded in the *Code*. The BC government acknowledged the *Code*-reform coalition's notion of '*high regulatory cost*,' streamlined the *Code* to restrict change to the secondary aspects. With the industry's economic downturn continuing and other jurisdictions' successful policy experience being identified, some government officials (e.g., Joy MacPhail) became willing to take further actions to address the industry's problem.[57] The policy subsystem became driven by those actively engaged in direct dialogues in the decision-making process. As depicted in the Ministry of Forests' 1998 discussion paper, a collective understanding that the results-based approach could provide a solution to the problem was developed. By spring 1999, as Hoberg (2001b, 86) has observed, the government was publicly admitting that its approach to regulation was not working. Chief Forester Larry Pedersen in a March 1999 speech stated: "But we've also learned that market structure and conditions won't support our original plan to regulate the industry closely into conformity with prescribed plans."[58]

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55 It could also be that the conflict was mainly between secondary aspects of one belief system and core elements of the other, as Sabatier and Jenkins-Smith (1999, 124) have postulated.

56 Sabatier and Jenkins-Smith (1999, 122, and 155 note 4) defined "*policy brokers*" as a third group of actor, whose principle concern is to find some reasonable compromise that will reduce intense conflict. See Sabatier and Jenkins-Smith 1999.

57 As the province's budget deficits and decline in investment (external shocks) continued, Fazil Mihlar, director of regulatory studies at the Fraser Institute, suggested lessons from Ontario about how to succeed in attracting jobs and investment. Among those recommended was again the reduction in government regulations. See Mihlar 1998. BC Finance Minister Joy MacPhail later announced to implement a policy, known as the 'business lens' (or the 'business impact test) that would consult industry before introducing any new legislations or regulations, while the government developed a new economic strategy to deal with the weakened industry and help achieve the job creation target. See Beatty 1998.

58 Larry Pedersen, Chief Forester, 'The Big Picture Policy Framework," 12. Quoted by Hoberg (2001b, 86, note, 83)

Despite these signs of policy-oriented learning across the *Code*-reform advocacy coalition, some faction of the environmental coalition, and government officials, a complete transformation of the *Code* did not take place. Those staying adversarial and adopting zero-tolerance positions could potentially exert significant opposition. Such high level of conflict obstructed the learning across the whole subsystem; a consensus on policy solutions was not achieved.

In response to the lack of widespread agreement on the problem and importance of various causes, as Sabatier (1988, 153) has posited, the idea of '*testing the results-based code through pilot projects*' was proposed by policy brokers (e.g., senior government officials) in the form of the Part 10.1 policy as a government action program that had a research component.[59]

Public participation, environmental protection, and limiting AAC under Part10.1

During the deliberation of Part 10.1, a commitment to public participation and environmental protection and setting a limit on the fraction of AAC coming under the experimental program were proposed by policy brokers (i.e., senior government officials of the BC Ministry of Forests involved in the Cariboo-Chilcotin summit). Such commitments and AAC restriction put constraints to the scope of policy change, helped tackle the effect of perceptual filtering, and facilitated the policy-oriented learning. On one hand, by allowing pilot projects to conduct results-based practices, to sanction professionals reliance and professional accountability, and to provide enhanced opportunities for local public review and comment, the Part 10.1 policy proposal suggested some possible future alternations in policy cores: proper distribution of authority between the government and the professionals; priority concerning the command-and-control regulation vs. the goal- and results-oriented strategies; and participation of the public vs. experts vs. elected officials in decision process. On the other hand, the Part 10.1 policy proposal addressed the effect of perceptual filtering, as some members of various coalitions, while embracing the competing coalition's causal viewpoint and prepared to further examine the existing policy model, were reluctant to admit that their deep core or policy core beliefs were invalid and/or unattainable (Sabatier and Jenkins-Smith 1999, 123).

The idea of '*a goal- and results- based code*' as characterized in the BC Ministry of Forests' 1998 discussion paper challenged the planning-based *Code*'s core beliefs. It evoked a conflict between policy cores, making policy-oriented learning across belief systems difficult. The Part 10.1 policy was enacted to gather evidence on the efficacy of the results-based approach, in hopes that shared knowledge, common understanding, and a broader consensus on '*a goal- and results-based code*' can be achieved at some point.

[59] Premier's Summit on Economic Opportunity for the Cariboo-Chilcotin, Workshop # 5: Forestry – Performance Based Code available at http:// web.archive.org/web/20010113185200/www.cariboosummit.gov.bc.ca/ last updated August 31, 1999

Given the new policy proposal, the conflict was no longer centering on critical policy core beliefs such as environmental protection standards; policy-oriented learning across coalitions became viable, as Sabatier and Jenkins-Smiths (1999, 124) have predicted. The proposed Part 10.1 offered the *Code*-reform coalition an opportunity to present evidence, addressed concerns over the exemption from the *Code*, and facilitated an analytical debate across coalitions on critical issues. The extent of professional reliance, the strategies and objectives of forest management, and the scope and manner of public consultation were all put to test.

7.2.2.2 Ideas and Policy-Oriented Learning Surrounding the FSJPP Policy

Deregulation, results-based landscape level planning, professional accountability, public participation, and adaptive management

Encouraged by the opportunity provided by the Part 10.1 policy, experience in CSA, and local stakeholders' previous involvement in other public policy processes, forest companies, led by Canfor, in the Fort St. John TSA proposed the FSJPP pilot project proposal.[60] Under the framework of Part 10.1, the results-based FSJPP advocacy coalition promoted the ideas of '*results-based*,' '*deregulation*,' '*landscape level planning and management*,' '*professional accountability*,' and '*public participation*.'

Local interests in general, the forest district manager and regional manager, and local officials of the Ministry of Water, Lands and Parks were supportive of the FSJPP proposal.[61] Proponents of the FSJPP stressed the proposal's merits, as summarized in the following paragraphs (Canadian Forest Products Ltd. 2001, 3, 5, 6, 7, 13).

The FSJPP proposal offered an equivalent protection as that under the *Code*, upholding the *Code*'s (and Part 10.1's) critical policy cores. Though site level activities would no longer require government authorizations, forestry under the pilot project would continue to follow the then-existing standards and planning regime until the approval of the SFMP, and the government would retain the authority to review the proposed activities. The project would also attain the CSA-SFM certification, which provided a specific model for public involvement and addressed criteria and critical elements of the CCFM. As such it

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[60] Canfor's CSA PAG experience in Grande Prairie provided a model for the FSJPP PAG. Also, by the time of the FSJPP, many local interests in the FSJ area had gone through the LRMP and/or the Muskwa-Kechika management programs and become familiar with public processes. These informed citizens were feeling comfortable with, and willing to commit to, the FSJPP PAG.

[61] As a member of the FSJPP PAG pointed out, the FSJPP provided another opportunity for local interests to become involved in the decision making process (personal communication, November 2006): "(Interest groups) want to work with forestry. Some people might pray to death that [forest companies] don't log, but not in trappers or guide & outfitters' opinion, their opinion is that [forest companies] have to do some logging, [forest companies] have to do some burning, so they like to work together on lower elation; the one we burn creates feed for the wildlife. It's a cooperative relationship." Also, personal communication with a former Canfor's staff member

presented a test of a modified policy core concerning a greater role of the local public (vs. experts vs. elected officials) in forest management decision-making. In addition, it would have an approved common landscape level SFMP, specifying results and offering guidance, flexibility, and innovation. As well, the proposal involved changes in administrative rules in the TSA, representing an experiment on alternative secondary aspects of the *Code*'s belief system.

Furthermore, the project made available an opportunity for experimenting with alternative harvesting and silviculture approaches in the boreal mixedwood forests, representing another experiment on alternative secondary aspects of the *Code*'s belief system - timber harvesting and silviculture rules. An administratively efficient model that would meet the regional custom of not using the site level plans as the primary consultation documents would be demonstrated, signaling more shift in secondary aspects of the *Code*'s belief system.

Based on lessons from previous pilot projects (e.g., IFPA and EFMPP) and the concept of 'adaptive management,' the FSJPP group emphasized the need for regulatory flexibility.[62] The FSJPP group argued that the regulatory framework had to allow timely amendments to the SFMP so they could adapt to changes.[63] The notion of adaptive management and flexibility suggested a change to the administrative rules thus a shift in the secondary aspects of the *Code*'s belief system (Sabatier and Jenkins-Smith 1999, 133)

The FSJPP also considered the establishment of landscape units and criteria for ecological conservation essential for any forest management plan.[64] The proposed SFMP, which would include strategies and

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62 Canfor and its partners under the FSJPP were previously involved in the Vanderhoof IFPA (announced in 1999, all volume-based and defined the Vanderhoof forest district as the pilot area) and the Morice & Lakes IFPA (announced in 1999, formerly the Babine EFMPP). As mentioned earlier, most IFPAs and EFMPPs were dependent on funding provided through FRBC and the government and allowed no change in legal requirements for forest practices. Once the funding ended, few of the innovative activities continued. An informant (personal communication, December 2007) wrote about taking on a Part 10.1 pilot project: "Part 10.1 pilot projects allowed regulatory change, and if the chosen forest management practices were successful and acceptable by the public, the projects could become sustainable." In his view, with appropriate incentives such as certification and a small group of competent forest professionals who could deliver a socially and economically efficient management framework, it would be possible to deal with large and multiple forest licenses in a cost-efficient regulation system.

63 An industry informant put this in plain words: "Once you get into something that is very complicated, like forestry that is very rarely black and white, you need to be able to adapt, in the concept of adaptive management, and try to learn to do something different. In the prescriptive environment, you can not do that. The whole concept of adaptive management [would be] that pilot allowed continuous improvement at the practice level" (personal communication)

64 A key consultant for the FSJPP explained: "I think [the landscape level planning is] a natural outgrowth of the work that professor Vladimir Krajina and all of those people started back in the 70s suggesting that everything should be based on ecological structure and ecological attribute" and "There are two reasons for [the landscape level planning], the first is that it is the right thing to do in most part of our forest landscape if [we] are going to harvest the best way, the other is that it also happened conveniently to be one of

objectives for landscape level management and be periodically audited by third-party auditors, suggested an alternation in the *Code*'s secondary aspects: a changing priority in aspects (procedures vs. results) of forest planning and trusting the ability of professional foresters in solving forest operation problem on the ground (Sabatier and Jenkins-Smith 1999, 133).

In short, the FSJPP proposed testing a number of modern concepts in a particular timber supply area (TSA), suggesting changes to some policy cores and more than a few secondary aspects of the *Code*'s belief system. However, there existed reluctance towards the FSJPP proposal, as the proposed project would become less controlled by a procedure-driven regulation. It was puzzling for some government officials and environmentalists to envision how to measure and evaluate the results of the FSJPP.[65]

Concerns of environmental groups

Representatives of the BC Environmental Network (BCEN) thought that the FSJPP proposal had a number of flaws. In their view, the proposal reduced the opportunity for diversity of forest tenures, inappropriately granted the exemption from the *Code*, did not choose an acceptable certification system, and deregulated the site level plans. They also considered the FSJPP proposal limiting information available to the general public and lacking meaningful and measurable targets for outcome evaluation, and doubted that the proposed FSJPP would meet the test of Part 10.1.[66] Their opposition to the FSJPP proposal revealed a conflict in advocacy coalitions' belief systems.

Policy-oriented learning across the FSJPP group, the PAG, and the government on the FSJPP proposal and the draft regulation

Although the conflict between the results-based FSJPP advocacy coalition and the environmental advocacy coalition involved some policy cores (e.g., professional reliance and the participation of local interests vs. bureaucratic governance), the BC Ministry of Forests' Joint Steering Committee (JSC) accepted the FSJPP proposal.[67] A tested model of public involvement with a consensus-based decision process was introduced

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the most cost-efficient way." Professor John Nelson, a STAC member of the FSJPP, made clear: "[Landscape level criteria] has to be there…..if [landscape level planning and criteria] are not in the forest management plan, the plan is not acceptable, no matter where in the world you go." (Personal communications)

65 Personal communications with BC Ministry of Forests staff members and representatives of environmental groups

66 See Clogg and Brewster, 2000, pp.1, 3-5. Their comments were addressed to the Joint Steering Committee (JSC) of the MOF. In the BCEN representatives' view, the project was designed to allow the participants to control and change forest management objectives without assurance to public interests.

67 The JSC then wrote to the FSJPP group that the participants could proceed with public advertising. See a BC Ministry of Forests Results Based Forest Practices Code Pilots Project Manager's letter, dated January 30th, 2001, to the then Canfor's Pilot Project Manager (an internal document of the BC Ministry of Forests).

to the FSJPP and learned by its PAG members. A variety of ideas/concepts and updated information were introduced to the PAG members to inform them of the range of management options. Subsequently, the PAG's belief system was updated in several policy core and secondary aspects (as discussed above). Given the support of the PAG for the FSJPP proposal and the draft regulation, the policymakers accepted that the proposed project could meet the requirements of Part 10.1 and that it would be possible to achieve business, social, and environmental goals without having to follow the *Code*'s stringent rules.[68] With direct dialogues and moderate level of conflict, policy-oriented learning across the FSJPP group, the PAG, and the government proved attainable.

Expert communities, local interests, mimicking the effect of natural disturbance, and mixedwood management in the FSJPP SFMP

During the development of the SFMP, the FSJPP advocacy coalition established an expert community - the STAC - as a supporting network for expert consultation.[69] The FSJPP advocacy coalition promoted modern concepts (e.g., participation of the public in landscape level planning, a more balanced preference for coniferous and deciduous species, important mixedwood interests, and mimicking the effect of natural disturbance based on updated local information and new techniques), in an attempt to change the PAG's belief system. In time, a series of landscape level strategies and a Sustainable Forest Management (SFM) matrix that incorporated those modern concepts became included in the SFMP,[70] which was later approved in April 2004 by government officials.

The FSJPP group stressed the participation of the local public in landscape level planning, suggesting a trial to give local interest groups a greater role in landscape level forest management decision process and signaling a likely shift in a *Code*'s policy core beliefs (Sabatier and Jenkins-Smith 1999, 133). The FSJPP group consulted a wide range of local interests[71] and a majority of the PAG members were appreciative of

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68 In July 12, 2001, the proposal in its entirety, along with PAG's supporting letter was submitted to the three resource ministers. In December 2001, the FSJPP and the FSJPPR were approved by the provincial government and the Cabinet, and portions of the *Code* were suspended in the project area, with up to 10 percent of the total harvest in the TSA coming under the FSJPP.

69 Using this model that worked for the TFL 48, the FSJPP group believed that these networks could bring in additional input and support to the SFMP.

70 In October 2003, supported by the PAG and the STAC, the FSJPP successfully achieved registration as an entity under the CSA CAN/CSA Z809-02 SFM for the Fort St. John TSA. With the Working Group and STAC's technical and administrative support, the PAG and the FSJPP participants, using the CSA SFM Standards as a module, established the criteria and indicators of the desired results, which included performance requirements that were in conformance with the CCFM criteria and the CSA SFM Standards.

71 During the period of August 2001 and February 2002, Slocan-LP joint venture, a partner of the FSJPP, successfully signed a MOA with Treaty 8 First Nations on deciduous volume for the OSB plant. Prior to the FSJPP, learning from the litigation case of CP212 (between Halfway River First Nation and Canfor), Canfor had recognized First Nations' treaty rights and formed a joint venture forest licence with West Moberly First Nations. Still, acknowledging Treaty 8 First Nations' rights, Slocan-LP Corp, a joint venture between Slocan and

the PAG process. According to a member of the PAG, the PAG process provided a formal opportunity for a group of wide-ranging local interests to participate in the decision-making process.[72]

The FSJPP coalition emphasized the use of local information and mimicking the effect of the region's natural disturbance for forest management. The notion sustained the *Code*'s core belief concerning the value of forest ecology and silviculture, but presented a modification to the secondary aspects of the *Code*'s belief concerning the choice of information and forestry techniques (Sabatier and Jenkins-Smith 1999, 133). With the data on local natural disturbance pattern becoming available (Delong 2002), the FSJPP group proposed to use the new information to emulate the effect of natural disturbance for forest operations.[73] In addition, the FSJPP group adopted a landscape level reforestation strategy based on a new and more cost-effective silviculture survey system that was developed by the TFL 49 group. The new technique provided an overall target volume projection and was capable of accommodating non-timber values.[74]A group of professional foresters, functioning as an expert community,[75] was in attendance to facilitate the learning process of the new reforestation technique, assisting in advocating the new approaches.[76]

Proponents of the FSJPP also advocated a more balanced weight for coniferous and deciduous species and recognition of important mixedwood-dependent interests, proposing to modernize the *Code*'s belief

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Louisiana-Pacific Canada Ltd. (now Canfor-LP Corp) signed a Memorandum of Agreement (MOA) with six Treaty 8 First Nations during the time period of August 2001 to February 2002 on deciduous volume for the OSB plant. With Treaty 8 FNs' joining the harvesting operations in the area, the FSJPP group was hopeful to garner the support of Treaty 8 First Nations and remained obligated to consult with First Nations in the pilot project area.

72 Personal communication with a PAG member, November 2006

73 The FSJPP group developed the seral stage distribution, patch size, and adjacency landscape level strategies and the associated objectives based on Delong's (2002) work. A member of the STAC emphasized the importance of landscape level strategy for habitat conservation, particularly in the NEBC where so many other things also going on with cumulative effects.

74 A then senior silviculturalist of Canfor learned the new silvicultural survey system developed by the TFL 49 group and transferred it to become the landscape level reforestation strategy in the SFMP. According to him (personal communication), the key advantages of the new silviculture survey system included: 1) time- and cost- savings on preparing silviculture prescription, as it allows submission of silviculture prescription for a population of cutblocks as an unit; 2) a landscape level regeneration standard with an overall targeted volume, instead of specifications at the stand level for each cutblock; and 3) the ability to accommodate non-timber values such as wildlife habitat, riparian protection, and First Nations traditional uses.

75 Haas (1992) defines an epistemic community as a group of experts who provides diagnostic model and seeks out actors who need help to construct support for their own preference or cognitive schema. Government officials, specialists from consulting firms, and professional forester involved in the TFL 49 (Riverside Forest Products) provided expert assistance to the FSJPP's landscape level reforestation strategy.

76 Although the new approach encountered skepticism, it also invoked enthusiastic discussions among forest tenures about its possible future applications. Some silviculture officials viewed the new approach a shortcut for forest companies to reduce expenditures on difficult sites (personal communications). Also mentioned in an earlier chapter was that some government officials were concerned with the new reforestation system not bringing a change in species diversity, as there still existed bias toward fast growing species. In addition, as noted in previous chapter, the new reforestation system was not developed for regenerating mixedwood because the system was designed for coniferous regeneration only.

concerning the importance of mixedwood management in the Fort St. John TSA, a secondary aspect of the *Code*'s belief system (Sabatier & Jenkins-Smith 1999, 133).[77] For mixedwood forests reforestation, the FSJPP group proposed a "Mixedwood Management Strategy" and a "Stocking Guidelines for Mixedwoods in the BWBS" as a trial for mixedwood management in the pilot project area.[78] Appreciative of the succession of the western boreal mixedwood, the FSJPP group advocated that a spruce-dominated stand (old ecosystem) could be allowed to grow aspen or mixedwood stand after harvesting, while bringing another area into more pure spruce to match the lost. With the latitude created at the stand level, proponents of the FSJPP believed they could still maintain the same percentage of each forest type across mixedwood landscape, thereby providing not only fair timber supply for both deciduous and coniferous tenures but also non-timber values such as wildlife habitats.[79]

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[77] Some mixedwood experts and mixedwood users found the conventional forest regeneration standards particularly troublesome in the mixedwood forests (personal communications with mixedwood experts and representatives of the Fort St. John Pilot Project participating forest company which mainly utilized deciduous species). In mixedwoods, coniferous and deciduous species were growing successionally, while coniferous tenures and deciduous tenures were allocated separately and operating on the very same land base. They argued (personal communications with a mixedwood expert) that the mindset and practices of 'plantation' and 'unmixing the mixed' embedded in the inveterate stocking standard (for achieving a certain level of conifer nomination) had become prevalent in BC since the work of Brand and Weetman (1986). As mixedwood experts have pointed out (personal communications), people tend to practice silviculture with [free-to-grow] guideline and shorten the rotation life so they get the conifer volume sooner, whereas naturally, it might take much longer to have the volume. They argue that if we are happy to live with a longer rotation, we can probably tolerate much more aspen in those stands. They also posited that demanding very little deciduous trees and requiring incredible measurements on distances and size of coniferous trees would unlikely produce intimate mixture. As they forewarn, we may end up with a plantation system in mixedwoods, producing pure plantations in mixedwood forests. In short, these mixedwood experts cautioned that the land base designation and free-to-growth standards had been artificial and mostly for the plantation purpose.

[78] A member of the STAC had concerns over the use of the TASS under the FSJPP to simulate growth of multi-species boreal mixedwood, however, advocated using a process-based ecosystem model for mixedwood management. His advice to the FSJPP group was to create temporal fingerprints with the aid of process-based ecosystem models at appropriate spatial scales. These fingerprints, in his view, could show the anticipated temporal variation in all values of interest at stand and landscape level that could be expected for "well managed" stands/landscape, however it is defined. With such a temporal benchmark, he advocated, one could then use the ecosystem management model to explore the possible temporal trends in values that result from a variety of alternative management designs and strategies (personal communication). As he asserted, this process-based ecosystem management model would provide a rational scenario analysis by which one could conduct value tradeoff and risk analysis and compare alternative approaches to achieving the desired future forest conditions. Nevertheless, other voices in the STAC held sway, and the process-based ecosystem based modeling approach, which carried several challenges, was not adopted by the FSJPP. The model was however used in the adjacent Chetwynd TFL, proving the feasibility and utilities of the approach (personal communication). Apparently, yield models for various compositions of mixedwood forests still needed to be improved.

[79] As mentioned in the previous chapter, some case study showed that it's the mixedwood stand that is really important for the songbirds that migrate through northern Canada in spring, that the number of the songbirds utilizing mixed stands is more than that utilizing either the aspen or pure spruce stands (personal communication)

Policy-oriented learning across the FSJPP group, the PAG, and the government on the SFMP

During the development of the SFMP, policy-oriented learning across the FSJPP coalition and the PAG appeared to be successful. Information updates and field trips on forest management were made available during the SFMP deliberation process. Members of the FSJPP coalition and the PAG – acknowledging the shortcomings of conventional regulations, the difficulties and importance of reforestation, and goals and interests arising from multiple perspectives - adopted new concepts such as the multi-block approach, collaboration at landscape level, and managing for mixedwood to improve forest stewardship. They also developed adaptive thinking to cope with uncertainties, and shared and made use of scientific information collected locally for continuing management and monitoring. Nonetheless, due to the effect of perceptual filtering (Sabatier & Jenkins-Smith 1999, 123), the FSJPP coalition was hesitant to renounce its core causal belief concerning the linkage between timber supply and economic welfare. The reforestation policy core - the plantation mentality - remained contentious.

It is noteworthy that the PAG process, like Parkins (2006, 185) observed in other similar local public process, could represent a place where local stakeholders initiated incremental change (e.g., removing historical sites from harvesting areas). Such a local arena could become a means for dealing with multiple perspectives or an extension of scientific peer review to a selected group of lay people (Parkins 2006, 185). Problems, values, and interests (e.g., the natural disturbance effects, mixedwoods ecology, and wildlife habitats) were identified; shared understanding and problem solutions became more attainable. As well, the PAG process served as a grassroots support to counter the competing discourses (Parkins 2006, 196), like in the case of the FSJPP, where the PAG's acceptance of the FSJPP proposal and the draft regulation became an aid in direct opposition to the BCEN's concerns. Furthermore, the PAG might have "[served] as a kind of scientific training ground for lay people," as Parkins (2006) suggested and evidenced by the PAG members' improved understanding of the region's forest practices such as river crossings, and control of mountain pine beetle (personal communications with PAG members).

7.2.3 Summary from the ACF Viewpoints

This portion of the analysis supports not all but some of the hypotheses specified in Chapter Two section 2.6.2. Although actors may join a coalition based on shared understandings, like those who believed in the multi-block approach, shared interests may also lead to coalition formation, like the participating forest companies whose major concerns were quality timber supply and cost saving.

Forest companies united with allies to promote the shared beliefs that the *Code*'s causal theories were flawed. After a sequence of exchanges of information and opinions among coalitions and policymakers throughout the late 90's, a bigger coalition was formed surrounding the idea of *Code* reform. The *Code*-

reform advocacy coalition consulted reports of policy advisory committees, accounting firms, scholars, opinion polls, experience of other jurisdictions, and opinions of professionals for quality data and viable solutions (Policy-Oriented Learning /Hypothesis H_{ACF-D}). Ideas such as '*professional accountability and professional reliance*' and '*a results-based code'* were embraced by many policy actors and, most importantly, the government officials, as reflected in the MoF's 1998 discussion paper.

Some environmental groups, however, remained faithful in the *Code*'s role in sustainable forest management and insisted that government need not revise the *Code*, while others, the BCEN for instance, were more flexible on the secondary aspects of the *Code*'s belief system. This internal discord of the environmental coalition does not support the stability hypothesis concerning advocacy coalition (Advocacy Coalition/Hypothesis H_{ACF-A}). Although sharing the same policy core with other environmental groups, the BCEN did not act concertedly with its fellow environmentalists, who chose to stay adversarial and adopt zero-tolerance positions on the issue of *Code* reform. The lineup of allies and opponents based on belief systems appears not as stable as the ACF would claim.

Although the Ministry of the Forests recognized the idea of a results-based code, as evidenced in its 1998 discussion paper, ending the *Code* was not a viable solution for the government, because the level of conflict between the *Code* reform advocacy coalition and some environmental organizations remained high. The resultant Part 10.1 resembled a policy outcome that Sabatier (1988, 153) has predicted for situations where neither a consensus on a policy solution nor a widespread agreement on the seriousness of problems and the importance of various causes exists: "a governmental action program with a strong research component and weak coercion" (Policy Change /Hypothesis H_{ACF-G}). Accordingly, the Part 10.1 policy not only lowered the level of conflict (see below) but also provided opportunities to gather needed information for future policy debate and improvement.

Following Sabatier and Jenkins-Smith (1999, 133), since the Part 10.1 policy mainly concerned information searches necessary to implement the *Code*'s environmental standards and only dealt with part of subsystems (i.e., pilot project participants vs. all forest tenure holders in BC), it could not be categorized as a revision in crucial policy cores of the *Code*'s belief systems. As such, the Part 10.1 legislation represented a policy decision that agreed with the Policy Change/Hypothesis H_{ACF-E} that the policy core attributes of a governmental program in a specific jurisdiction would not be significantly revised as long as the subsystem advocacy coalition that instituted the program remained in power. This analysis also observes the presence of what Sabatier & Jenkins-Smith (1999, 123) termed the perceptual filtering effect, where some members of the coalitions, while embracing the *Code*-reform coalition's causation viewpoint and prepared to examine the existing policy framework, resisted accepting that their deep core or policy cores were invalid or unattainable, as reflected in the choice of Part 10.1 policy rather than the results-based code proposal depicted in the 1998 discussion paper.

With the BCEN being willing to negotiate on some aspects of the *Code*'s belief system and some former and then current government officials playing the role of 'policy brokers,' Part 10.1 was designed to maintain the basic value priorities of the *Code*, as reflected in the preamble to the *Code*, upholding the Policy-Oriented Learning /Hypothesis H_{ACF-B} (Policy-oriented learning is more likely to occur in the situations that do not involve conflict between core elements of competing belief systems). Similarly, in the case of the FSJPP, despite the BCEN raising concerns over the new system, the policy-oriented learning across the FSJPP group, the PAG, and the government appeared to be successful - thanks to the aid of expert community and the direct dialogues with a group of wide-ranging local interests and lay people. This observation again supports the Policy-Oriented Learning/Hypothesis H_{ACF-B}, as the learning took place when the level of conflict was intermediate. Consequently, few policy cores were revised but several secondary aspects of belief systems were modified, as pointed out in sections 7.2.2.1 and 7.2.2.2.

Expert communities, providing updates on research information, causal models, and solutions appeared to have facilitated the policy-oriented learning across belief systems. For instance, silvicultural specialists and researchers from the private and public sectors studied, discussed, and debated the merits of the multi-block approach and helped the adoption of the new technique in the case of the FSJPP (Policy-Oriented Learning/Hypothesis H_{ACF-C}).

In addition, Delong's (2002) work on the natural disturbance units of the Prince George Forest Region provided quantitative data that the FSJPP coalition could apply, making the policy-oriented learning process rather unproblematic (Policy-Oriented Learning/Hypothesis H_{ACF-D}). Other instances of quality data facilitating policy-oriented learning included the Task Force analytical report on the causes of delay in the approval of Silviculture Prescription (see BC Professional Accountability Task Force 1996, Summary) and the 1997 KPMG study, which made some private citizens, government officials, and some environmental organizations ready to accept a greater emphasis on the ability of industry professionals (vs. government officials) in solving the forest management problem (Policy-Oriented Learning/Hypothesis H_{ACF-D}). As well, the SFM Matrix, developed during the PAG process and containing specific values, goals, objectives, indicators, and a total of 61 targets, smoothed the progress of policy-oriented learning across the FSJPP advocacy group, the PAG, and the policymakers. Likewise, the proposed "Mixedwood Management Strategy" and a "Stocking Guidelines for Mixedwoods in the BWBS" presented performance indicators that eased the learning process.

The external economic perturbation motivated the *Code*-reform advocacy coalition and subsequently the results-based FSJPP advocacy coalition to challenge the *Code*'s belief system. These coalitions believed that there could be an alternative yet viable regulatory framework that would lead to sustainable forest management. As a result, concepts advocated by the FSJPP advocacy coalition became embraced by the

PAG members and the government officials. The modification of non-crucial aspects of belief systems supported the ACF Policy Change/Hypothesis $H_{ACF\text{-}F}$. Viewed through the lens of the ACF, the conversion of beliefs was indeed a function of 1) the modification of policy beliefs and resources of subsystem actors, 2) the extent of policy-oriented learning, 3) the effect of perceptual filtering, and most importantly 4) the external perturbations, as emphasized by Sabatier and Jenkins-Smith (1999).

Chapter Eight

Discussions and Conclusions

This chapter begins with a summary of the evolving forest policy landscape in BC and Northeast BC. It then proceeds with a contrast of the two theoretical frameworks, a summary of the PRF lens on the cases, and a summary of ACF lens on the cases. Finally, synthesis of the two theories will be presented.

8.1 A Summary of Forest Policy Evolution in BC and Northeast BC

Prior to the 1990s, for decades, 'sustained yield' forestry had been the major principle of forest development in BC. Before the *Code* was enacted, the principal instrument for the regulation of forest practices was the licence agreements between forest companies and the government. Each agreement contained a complex and area-specific mix of guidelines and provisions and was established in a classic bargaining process. Forest practices were governed by a bewildering array of statues, regulations, and nonbinding guidelines, which varied significantly from area to area.[1] As a result, forest practices regulations were characterized by a limited or uncertain legal basis, substantial regional variation, and weak enforcement (Hoberg 2001b, 65). In the late 1980s, as the environmentalists increasingly challenged the regime, the idea of conservation biology and ecosystem management became influential in the policy-making system (Wilson 1998, 15). In the early 1990s, the *Code* was introduced to increase the protection of environmental values through prescriptive rules on planning and operation.

When the economic downturn occurred in 1997, pressure for reform toward a results-based code built up. In 1998, the BC Ministry of Forests' discussion paper on a results-based code prompted opposition of the mainstream environmentalists. In the end, a Part 10.1 policy was put forward to test results-based pilot projects, with the Fort St. John Pilot Project (FSJPP) in Northeast BC being one such projects.

Forest practices in Northeast BC in general followed the provincial forest policy developments, but encountered more sympathetic local governments and communities and more resource use conflicts. Previously, forest harvesting in the Fort St. John TSA was primarily centering on coniferous stands; it was not until the 1980s and the early 1990s that the government began to encourage deciduous utilization and focus on related management issues such as forest inventory and land use conflicts. The LRMP and the Muskwa-Kechika Management Plan provided strategic directions for resource management in the region. Despite governmental efforts in land use

[1] Although these guidelines were nonbinding, they did attain general legal force if they were included in stand-specific cutting plans (Hoberg 2001b, 64).

planning and rather generous AAC allocations in the 1990s, resource management and forest development in this resource-rich region continued to face resource use conflicts and controversies. In a 2002 survey of resource tenure holders in Northeast BC, 70 percent of the respondents indicated that their business were negatively affected by conflicts over tenured land use.[2]

Forest planning and harvesting operations in the Fort St. John TSA followed a number of conventions, and it was expected that timber harvesting in the area would have little impact on landscape level biodiversity objectives (Pedersen 1996). Nevertheless, due to the complex and dynamic temporal and spatial nature of boreal mixedwood forests, a major policy issue in the region was how much management to apply on mixedwoods. To date, the question of how to maintain future timber supply while still providing for various social and ecological values in mixedwood area remains a significant challenge.[3]

Part 10.1 and the FSJPP suggested a new forest policy approach: a results-based forest practices regulation. With the two policy outputs, policy making became more transparent, and the policy instrument was simplified. Policy change identified in this study is in general not major in the paradigm-shifting sense. Part 10.1 and the FSJPP, like the regulatory framework it replaced, applied the same level of resource protection standards and used forest planning as the main tool for regulating forest operations. The most significant changes were the results-based focus, the increasing role of industry professional foresters, the formation of local community committees, and the resulting reduction in government and public involvement in detailed operational planning. As a result, the *Code*'s fundamental discourse - government command-and-control - on the whole continued, but the belief in the ability of experts in managing forests was increasing.

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[2] BC Ministry of Sustainable Resource Management (2004, Forward) emphasized a need for coordination and reducing conflict between tenure holders: "In a 2002 survey of resource tenure holders in Northeast BC, 70% of the respondents indicated that their business was adversely affected by conflicts over tenured land use."

[3] Representatives of the FSJPP participating licences commented on the mixedwood management challenge, arguing that if they get too stringent around cutblock approach, they may exclude biodiversity values, like people would see in the plantations in Europe; that if they let nature do the job, existing mill capacity may not be able to sustain into the future (personal communications with informants). A forest management consultant commented on forest management that all silviculture activities have been based on flawed assumptions. In his view, Chief Forester should be deciding AAC based on what British Columbians want in the future, not what was planted yesterday. "A same mill that is best for today probably is not going to be the best 50 years from now. We need a silviculture policy that looks to the society's future forestry objectives," added the informant (personal communication)

8.2. Comparison of the Two Theoretical Frameworks

This thesis analyzed policy change from the viewpoints of two theoretical frameworks, the Policy Regime Framework (PRF) and the Advocacy Coalition Framework (ACF). The ACF explains policy change by identifying shifts in beliefs that facilitate the change, whereas the PRF tries to interpret policy change by looking at the power dynamics among strategic actors. The two frameworks have much in common. They both focus on policy domain subsystems, and have long term policy change as the dependent variable and exogenous changes (or changes in background conditions) as an independent variable. They both argue that exogenous factors such as public opinion, elections, and economic fluctuations can affect the policy subsystem and lead to significant policy change. In absence of external shocks, they both maintain that policy change takes place incrementally.

The two frameworks differ in many aspects. The ACF focuses on learning, explaining policy change with experience-based belief change. It stresses the force of causal and normative arguments in bringing about policy change. It downplays power dynamics, including the structural power of business and interest group strategies like framing, participation management, or venue shopping. The ACF includes government officials in the advocacy coalition and assigns government officials the role of policy brokers, whose principal function is to find some reasonable compromise which minimizes conflict.

The PRF focuses on power dynamics and policy change resulting from competing strategic actors bringing their resources to bear to influence policy. It emphasizes the effect of business structural power at times of economic downturns in influencing policy direction. It considers ideas as a means to an end, one of several power resources that strategic actors use to influence policy. As Hoberg (2001a, 16) has stated, “the legitimacy of certain arguments contributes to the influence of the actors promoting those arguments.” On the influence of causal and normative arguments, Hoberg (2001a, 16) writes: “Causal arguments are given credence by the views of acknowledged experts in the field, whereas normative arguments get their credibility from their compatibility with the interests or values of the relevant public.” In addition, the PRF emphasizes as crucial the distinction between actors who have authority and those that have mere influence/power, and stresses the essential position of government actors in a policy subsystem because they possess authority of making policy decisions and desire to be re-elected which private actors do not have.

8.3 Summary of the PRF Lens on Case Studies

With the NDP’s social democratic roots and its desire to respond to the environmental movement, the Harcourt government carried out a series of forest policy reforms, including the establishment of the *Forest Practices*

Code. As such, the *Code* was a new political party's policy change to address its perception of changing public opinion and markets. It was a partial victory for environmental groups.

Following the enactment of the *Code*, the BC forest industry pressed for policy reversals. By the mid-1990s, other players were mobilized to become allies of the forest industry on a range of issues (Wilson 1998, 42). The NDP Clark government elected in 1996 received both support and criticism from environmentalists. While the BCEN playing an important role in many policy negotiations, some elite environmentalists were operating at arm's length to facilitate the government's attempts to obtain consensus on certain policy issues (Wilson 1998, 63).

Viewing through the lens of PRF, the change in market conditions and the economic health of the industry led to a shift in the relative power resources of environmentalists and industry. Much of the story revolved around how actors invested their power resources and strategies in the pursuit of their interests. At one point, the structural power and lobbying force of the forest industry were about to push the industry's issue definition (i.e., reforming the *Code* toward results-based) onto the policy agenda, as evidenced by the Ministry of Forests' 1998 discussion paper. But, such strength was then offset by the counter-framing of mainstream environmentalists, the shield effect of environmental movement, the institutional path dependence and policy legacies.

In the case of Part 10.1, in anticipating the power of environmental movement and motivated by incentives embedded in the *Code*'s regime, the government chose the route of incremental change and treated the reform issue in technical terms. The industry's attempt to restore technocracy (i.e., governing by technical experts) was deterred. But, neither did the environmentalists succeed in insulating the *Code* from the influence of powerful contenders, in part owing to industry's relatively strong structural power and its strategic campaign.

Throughout the story, the government struggled with conflicting pressures, while searching for a solution that served the common purpose. The analysis reveals how each group of players was influenced by policy legacies and the broader political and social-economic factors. It also shows how policy actors explored ways of exerting impact on policy output to protect their interests. Many policy accomplishments were founded on effective use of strategies. For example, in the case of Part 10.1, by framing forest practices governance as an issue of professional reliance, the forest industry and professional foresters effectively challenged the *Code*'s basic assumption and legitimized their interests in becoming more independent from the rule-based regulations. Through linking their competitiveness with the *Code* and with other important social-economic issues, forest companies claimed that their problem was a province-wide issue. But then, by treating the question of regulating forest practices as a technical and research agenda, the government avoided abolishing the rules-based *Code*.

In the case of the FSJPP, proponents of the FSJPP subsumed their logging project and the landscape level reforestation strategy under the technical terms of mimicking the effect of natural disturbance. As well, in empowering a local public committee, the forest companies managed the involvement of the public, thus kept in check the level of conflict surrounding the pilot project. Moreover, defaults were used as a deterrent against concerns over the FSJPP proposal, enabling a smooth and speedy approval of the project.

In sum, looking through the PRF lens, the *Code* brought constraints to forest harvesting, forcing the forest industry and its allies to consider how best to legitimate their results-based proposal. The reform issue was carefully framed and linked (or de-linked) with ideas perceived as genuine, rightful, and acceptable for the purpose of political negotiations. In the end, the reform advocates were given an opportunity to put their proposal to test within a set of fundamental parameters (i.e., the Part 10.1 provisions), though for environmentalists the test remained controversial.

8.4 Summary of the ACF Lens on Case Studies

Through the ACF lens, we saw a *Code*-reform advocacy coalition (or the minority advocacy coalition) trying to regain dominance in forest practices policy throughout the 1990s. In the pre-*Code* era, government officials and the forest industry were in general united in their policy core belief that forestry is an engineering problem to be solved by the professionals (from both private and pubic sectors) working in partnership with the industry. Entering the *Code* era, the state and its environmental allies became the dominant coalition, while forest operators and its sympathetic advocates becoming the minority coalition. However, the shared professional background between the BC Ministry of Forests' officials and industry professionals helped maintain their deep core belief in the primacy of the forestry development (Wilson, 1998, p.33).

As the industry revenue loss deepened, the question of balancing harvesting cost, jobs, and environmental values became increasingly controversial, which helped undermine belief in the efficacy of the *Code.* The shift in the broader market condition forced the provincial government and its environmental allies to defend the underlying principles of the *Code,* and triggered some policy-oriented learning within the dominant advocacy coalition concerning some policy cores and secondary aspects of belief system. Despite that, the dominant coalition, mainstream environmentalists in particular, engaged in what Sabatier terms a 'dialogue of the deaf' and opposed a results-based code as a solution (Sabatier 1988, 155), because it was in conflict with their policy core beliefs. As a result, the rule-based, public-servant-hands-on *Code* paradigm remained dominant throughout the late 1990s. The *Code*-reform advocacy coalition (or the minority advocacy coalition) waited to exploit opportunities to undermine the *Code's* paradigm, which it believed to be flawed.

As data showed industry's continuing financial loss, participants of the Cariboo-Chilcotin economic summit called for the development of an alternative regulatory framework - a *performance-based Code.* According to the ACF, these economic downturns could not translate automatically into policy change; they needed to be

skillfully exploited by members of the minority advocacy coalition. Community leaders and business organizations[4] joined the forest industry in criticizing the *Code*. The forest industry also gained support of some cabinet member (e.g. BC Financial Minister Joy MacPhail) by referring to successful policy experience of other jurisdictions (e.g. Ontario's success in attracting jobs and investment through reduction in government regulations).[5]

In the case of the FSJPP, the results-based FSJPP advocacy coalition promoted the ideas of 'results-based,' 'deregulation,' 'landscape level planning,' 'professional accountability,' and 'public participation,' and asked the PAG and the governments to look into an alternative regulatory framework. Proponents of the FSJPP offered a modified belief system that maintained the basic value priorities as reflected in the preamble to the *Code* but gave industry professionals and local interest groups a greater role in forest management decision-making. The proposed new framework also focused on landscape level (rather than cutblock level) planning, embraced alternative harvesting and silviculture techniques, and deregulated the site plans. It differed from the *Code*'s framework in some policy cores (e.g., a greater role of the local public (vs. experts vs. elected officials) in forest management decision-making; the ability of forest companies and professionals) and secondary aspects (e.g., flexible administrative rules; priority in aspects (procedures vs. results) of forest planning; choices of timber harvesting and silviculture techniques). Despite the BCEN raising concerns over the new management system, the policy-oriented learning across the FSJPP group, the PAG, and the government was shown to be effective. The ideas of managing at landscape level, Natural Disturbance Units, mimicking nature, and adaptive management were recognized among these players, thanks to the backing of experts and direct dialogues with a group of wide-ranging local interests and lay people, and the moderate level of conflict.

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4 Elite economists such as PricewaterhouseCoopers economist Craig Campbell noted that forest companies in BC were going deeper into debt because they were unable to attract capital. The entrepreneurship Jim Pattison too campaigned for policy change (Palmer 1998a). Also see UBCM polity paper #3, dated August 20, 1998.

5 As mentioned in earlier chapter, when the province's budget deficits and decline in investment (external shocks) continued, Fazil Mihlar, director of regulatory studies at the Fraser Institute, suggested lessons from Ontario about how to succeed in attracting jobs and investment. Among those recommended was again the reduction in government regulations (Mihlar 1998). BC Finance Minister Joy MacPhail later announced to implement a policy, known as the 'business lens' (or the 'business impact test) that would consult industry before introducing any new legislations or regulations, while the government developed a new economic strategy to deal with the weakened industry and help achieve the job creation target (Beatty 1998).

8.5 A Synthesis of the Two Theories

Although the ACF and PRF both emphasize the analytical importance of interaction of actors within a policy-making system, the nature of such interaction in one model is different from that of the other. With a focus on distinguishing belief systems of actors, the ACF makes it easier to grasp the advocacy coalitions, but it does not say much about the source of these coalitions beyond the observation that members within each coalition share similar beliefs.

The ACF is insufficiently attentive to power dynamics – actors and their interests, resources, and strategies used to influence policy – in explaining why some concepts (e.g., putting more responsibility back to the government, environmental concerns about the slow-growing tress, and the problem with the use of a free-to-grow standard in the mixedwood forests) raised during the FSJPP process were not fully reflected in the policy outcomes. Instead, the dismissal of these concepts would be explained, through the lens of the ACF, by a number of cognitive factors: the concepts being in conflict with the policy cores of 'governing by technical professionals' and 'timber supply for economic welfare;' the perceptual filtering effect of disagreeing that 'governing by technical professionals' and 'timber supply for economic welfare' would be invalid and/or unattainable, and/or a lack of supports of policy brokers for such arguments.

Explaining the choices of not reflecting some concepts or concerns (e.g., putting more responsibility back to the government, worry about the slow-growing tress, and the issue of a free-to-grow standard) in the policy outcomes with the NDP government's policy cores of 'governing by technical professionals' and 'timber supply for economic welfare' seems problematic. Evidently, the NDP government, having committed to the *Code*'s policy core of government control, hesitated to abolish the *Code*, and called attention to the anticipated timber shortfall in its AAC determinations.[6] As such, the ACF lens neglects the significance of industry structural power during the time of economic downturns and the effectiveness of conflict expansion and containment strategies that industry actors draw upon. Neither does it pay due attention to the overriding authority of provincial government over the control and management of the province's natural resources.

Depicting forest policy in terms of a power struggle, the PRF lens does capture dimensions missed by the ACF lens. Other than policy-oriented learning, power factors such as structural power of business, public support, and authority also help shape the policy output. As well, the strategies actors demonstrated in the two case studies contributed to the policy output. The incremental change shown in Part 10.1 and the FSJPP confirm

[6] For example, in his 1996 AAC determination for the Fort St. John TSA, the provincial Chief Forester Larry Pedersen pointed out the downward adjusting pressures for the base case forecasted coniferous AAC in the Fort St. John TSA included: the presence of a larger proportion of unmerchantable coniferous stands (e.g., poor pine stands), the possible overestimate of the mature coniferous stands volume and the possible underestimate of the NSR area, the newly committed woodlot licences, and the potential impacts of the upcoming landscape level biodiversity and riparian habitat objectives (Pedersen 1996).

Hoberg's (2001a) view that "Learning is neither easy nor inevitable, as actors with conflicting interests will contest the meaning and significance of various consequences" (p.17) and that "the major role of ideas is to inform the interests and strategies of regime actors and to provide valuable political resources for actors" (Hoberg 1998, 7). The variety of strategies demonstrated in the case studies also supports Hoberg's suggestion that actors are cognizant of the structural biases of particular contexts; they frequently adopt strategies to alter the institutional arena or ideational context of decisions to promote their own interests (1998, 9).

The industry's economic problems triggered a new contest for authority, rather than simply an analytical debate on competing causal and/or normative arguments, as various policy actors tried to outplay one another on the direction of regulatory approach. The effectiveness of government's strategy in defining the problem in narrow terms was empirically revealed. It succeeded in taking the issue of a wholesale reform off the political agenda but allowing some leeway for political negotiation. Ideas were given credence by their compatibility with the view of acknowledged experts in the field, as shown in FSJPP group's subsuming forest practices under the terms of mimicking the effect of natural disturbance and landscape level management. As well, the government's enduring the controversy surrounding the 'unmixing the mixed' practices exemplified the autonomy in imposing solutions the government enjoyed.

Accordingly, the case studies show four significant limitations of the ACF. First, the ACF does not adequately address the effect of participation management on politics. The repositioning of the fault lines between advocacy coalitions within the policy subsystems reveals the important effect of actors' strategy of participation management that the ACF does not take into account. The ACF argues that the lineup of allies and opponents around an issue is fairly constant over time (Sabatier and Jenkins-Smith 1993, 30). But, when a few elite environmentalists chose to operate at arm's length and take a stance distinctive from that of the mainstream environmental organizations, as in the case of Part 10.1, or joined their former adversaries, as in the case of FSJPP, the politics shifted dramatically. The coalition which the few elite environmentalists connected with could then plausibly claim to represent divergent interests in the policy forum and gained legitimacy with the public and policymakers, as Pralle (2006, 210) has also observed in the case of Quincy Library Group.

Another related tactic was the consensus-base decision process used in the PAG process. By requiring reaching a 'consensus' on recommendations and hiring a private facilitator to moderate the procedure and resolve disputes (regarding process issues), the FSJPP group contained potential confrontations during the PAG process. A third strategy of participation management is the establishment of the STAC, an expert community with reputable credentials. Though the STAC might have helped develop a shared understanding concerning new concepts/techniques such as the multi-block reforestation approach and the region's natural disturbance patterns, the support of government officials who were involved in the STAC and the publications of STAC members on the new concepts and techniques would also have served to increase the legitimacy of the new concepts/techniques. Merely viewing an expert community in terms of quality information and scientific solutions, the ACF misses the effect of respectable credentials, including authority, as power resources resulting

from the STAC arrangement. Without such credentials, new ideas would unlikely be embedded in the policy outcome. The continuing use of a free-to-grow reforestation standard, though having prompted the concerns of some mixedwood experts, revealed the effect on policy outcomes of forces other than ideas, such as a power of the status quo.

Second, policy-oriented learning is not automatically transformed into policy. A great merit of the ACF is its emphasis on policy-oriented learning across advocacy coalitions and the role it ascribes to experts and government officials in the policy process. The role these particular actors play is confirmed in the case studies: a group of senior public servants and their advisors recommend a policy solution from which the Part 10.1 evolved; several former government officials' were of great assistance in conveying new concepts and technologies to various audiences in both plain and legal terms. These individuals were successful in brokering policy solutions by identifying a realistic middle ground that would minimize the conflict in the policy process. As well, academics, consultants, researchers, and journalists played important role in generating and disseminating ideas. They brought in quality information and alternatives to facilitate the policy-oriented learning. The concepts of policy-oriented learning, brokering efforts, and analytical dialogues indubitably helped explain the incremental nature of policy change.

However, these insights do not account for the effects of framing and other issue definition tactics and the insulation accomplished by managing public participation (see above). As Stone (1989), Litfin (1994), Jacobsen (1995), Campbell (1998), and Pralle (2006) have suggested, ideas, information and their disseminations are subject to framing. Actors' use of strategies influenced the scope, context, subject, and timing of learning and subsequently exerted an effect on policy output. The government's delayed response to calls for the *Code* reform and its eventual decision to define the issue in narrow terms, as shown in case of Part 10.1 that the government allowed an exercise of small scale experimental projects, illustrate how policy-oriented learning is not automatically transformed into policy: ideas can be ignored, rejected, or distorted by policy players and decision-makers.

Third, the ACF does not adequately emphasize the authority of government actors. Although the ACF recognizes the government's role of brokering, the model underpays the decision-making (and no-decision-making) influence of such actors, as A. Smith (2000, 104) has pointed out. It was only after the failure of the Jobs and Timber Accord that the government decided to respond to the request for the results-based alternative. When the dominant coalition was contested and new political forces and calculations (e.g., the empathetic public, concerned forest-dependent workers and their communities, and opposition party's negative campaign on government policies and programs) entered the policy arena, a former senior official of the BC Ministry of Forests clearly played a crucial role in forming policy direction.

The senior official's appreciation of environmental concerns and commitment to a value-balanced public policy led to a solution that accommodated the viewpoints of both the dominant and the minority coalitions (personal communication with the former senior official of the BC Ministry of Forests). The authority pertinent to the position perhaps also helped settle the contest. The role went beyond the conception of 'policy broker' employed by Sabatier because of personal policy inclination; this individual was not merely trying to minimize the level of political conflict, but also wanting to maintain the critical elements of the *Code*. Confirming Jordon and Greenaway's (1998, 687) comment on the concept of 'policy broker' in the ACF model, state bureaucrats obviously have interests and strategies of their own; they do not just try to achieve consensus, they do have authority as a power resource to influence policy output.

Fourth, the internal division of the state and among the environmentalists seemed to violate the ACF's proposition of deep core or policy core being the principal glue of an advocacy coalition. For example, government officials who advocated the multi-block approach became supporters of the minority advocacy coalition, while those who insisted on the conventional silviculture techniques remained as members of the dominant advocacy coalition. Also, local environmental elites participated in the PAG, which expressed support for the FSJPP proposal, while the provincial environmentalists representing BECN in reviewing the FSJPP showed opposition to the FSJPP proposal. Each pair of the divided groups was supposed to share the same core beliefs: the importance of coniferous regeneration and the value of wilderness conservation. Yet, the two sides of each pair joined different advocacy coalitions. Such a splitting-up cast doubt on the ACF's use of 'policy core' for defining an advocacy coalition and the dynamics of a policy-making process.

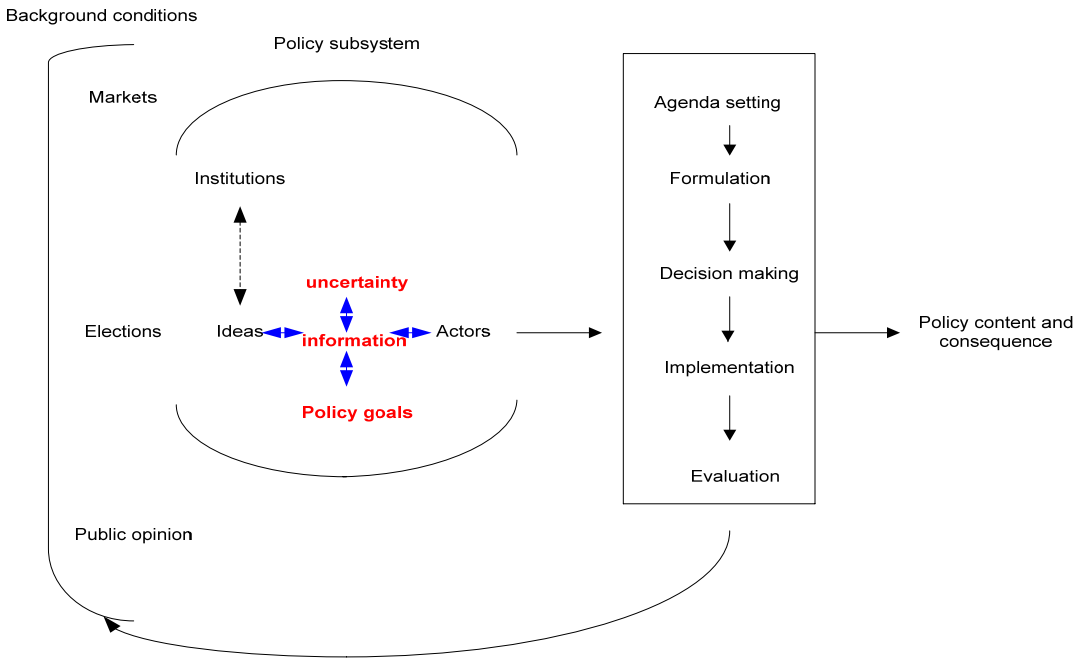
What led to the forming of a coalition may have been less about shifts in beliefs, but more about the legitimacy brought to the minority advocacy coalition by individuals who were previously (or supposed to be) members of the dominant advocacy coalition.

While the PRF does a better job addressing these issues than the ACF, the PRF does not adequately address learning as puzzling. As Heclo (1974, 305-6) has argued, governments not only 'power,' they also 'puzzle.' Empirical data show that ideas can serve as not only a power resource but also answers to a puzzle. When policy actors encounter uncertainty, incomplete information, and shared goal, ideas can provide opportunities for learning. The idea of a multi-block approach informed forest companies, the government, and local interest groups of alternative reforestation survey technique without jeopardizing the policy goals of timber supply and wildlife management. The new technique was thus learned as a solution for solving the industry's problem of reforestation liability, while still reaching the goal of timber supply and wildlife conservation. Similarly, Delong's research findings on Natural Disturbance Units (NDUs) provided local-level baseline information on the region's range of natural variability for habitat management, helped identify how best to approximate the pattern and structure created by natural disturbance. The PRF is flawed because it does not give due consideration to such leaning as source of policy change.

Based on the above research findings, this study offers a theoretical framework that modifies the Policy Regime Framework, as shown in Figure 8.1 below. A hypothesis for predicting when and how learning can take place and thus exert influence on policy output is suggested to be added to the hypotheses of the Policy Regime Framework:

> When uncertainty is high, information is incomplete, and the policy goal is shared, the more likely that learning can lead to policy change.

Figure 8.1 A Modified Policy Regime Framework – with new factors added to the Policy Regime Framework highlighted in bold and colors



8.6 Closing

This study confirms the utility of the ACF and the PRF in explaining policy change and identifies the limitations of each of the two theoretical lenses. The analysis concludes that the PRF is advantageous in enlightening sources of policy change and suggests adding to the PRF the conditions under which learning can lead to policy change. The RPF does not give sufficient credit to the capacity of ideas in facilitating learning and leading to policy change. As the story has shown, under circumstances of puzzling (e.g., the uncertain effectiveness of the landscape level reforestation strategies), perspectives (e.g., ways of achieving the

established targets) with shared goals and low political conflict are more receptive to learning (or a trial) for policy change, a point the PRF does not adequately recognize.

This study also finds the assumption concerning the formation of advocacy coalitions problematic. The fault line between the dominant coalition and minority coalition was not simply built on a discrepancy among policy cores. Non-cognitive factors such as the power dynamics of the environmental movement and the forest industry, the public sentiment and anxiety at the time, and the variation of government's organizational capacity in law enforcement seemed also play a role in the shaping of the dominant coalition. Another disadvantage of the ACF is the unclear role it ascribes to government officials. Government officials not only brokered but also made decisions. Governments hold the power of authority; they can resolutely influence the pace and direction of the policy process and policy outputs. The role of ACF's policy broker requires further clarifications.

In sum, both models examined in this study offer insights into the shifts in BC's forestry regulatory framework. By stressing the importance of ideas and policy-oriented learning in politics, the ACF provides a valuable input to the policy change literature. However, the ACF overlooks the crucial policy effect of actors' interests, power resources, and strategic actions, the key forces of change identified in this analysis and pointed out by policy change literature described in Chapter Two. In addition, the ACF's concepts of advocacy coalition and policy broker need further clarification. The forces behind the formation and reshuffling of the advocacy coalitions within a policy subsystem appeared to go beyond belief systems, and government officials seemed not simply to minimize the level of political conflicts.

This study presents a new synthesis of the two theories. What the two theoretical frameworks have in common are: 1) using the policy specific subsystem as the unit of analysis, 2) having long-term policy change as the dependent variable, and 3) identifying external shocks as an independent variable. However, one crucial difference between the two theoretical lenses is the relative importance of learning.

The ACF emphasizes the importance of shared belief systems to the creation of advocacy coalitions and the outcome of public policy, and advocates the role of information in persuading decision-makers and learning that lead to shifts in beliefs in the process of policy change. It assumes that learning is instrumental for furthering policy objectives (Sabatier and Jenkins-Smith 1999, 123). On the other hand, the PRF maintains that "Learning is neither easy nor inevitable, as actors with conflicting interests will contest the meaning and significance of various consequences" (Hoberg 2001a, 17) and that "the major role of ideas is to inform the interests and strategies of regime actors and to provide valuable political resources for actors" (Hoberg 1998, 7). In other words, actors, according to the ACF, are motivated by shared values and normative conceptions that are most likely developed through policy-oriented learning, while, in the PFR, actors take strategic actions based on perceived threats to their interests.

Empirical data have shown that ideas can serve as not only a power resource (as the PRF has posited), but also answers to a puzzle (what the ACF has emphasized). When encountering uncertainty, imperfect information, and shared goals, policy actors can learn from ideas. The idea of a multi-block approach and Delong's natural disturbance units informed actors of alternative methods without jeopardizing the policy goals of timber supply and wildlife conservation. New ideas were learned as a solution for solving the problem of reforestation liability and how best to mimic the natural disturbance at the landscape (or multi-block) level, while still meeting the established goals.

The PRF is flawed in not considering leaning as a source of policy change. Based on research findings, this study recommends a new synthesis of the two theories by presenting a way to include it in a modified version of the policy regime theory, as shown in Figure 8.1 above. A hypothesis for predicting when and how learning can take place and thus exert influence on policy output has also been suggested to be added to the hypotheses of the Policy Regime Framework.

Part 10.1 and the FSJPP have transformed the participating forest companies from individual operators to a coordinated entity. The Forest Practices Board audit report of 2007 has found the level of management in the FSJPP area increased. That being said, the question of whether the landscape level strategies will achieve the established objectives and targets remains to be answered. One may reasonably presume that the new FRPA regime established in the early 2000's grew from the Part 10.1 experiment. State officials, forest industry leaders, and other private actors who were involved in Part 10.1 and the FSJPP are expected to bring their experience to the new policy cycles, the making of FRPA in the early 2000s for example. Further research is required to examine this presumption.

It is hoped that the results of this study will contribute to future development of the ACF and the PRF. For researchers on the ACF or the PRF in the future, it is suggested that more empirical data on policy players' belief systems, including the deep cores, policy cores, and secondary aspects, and their change over time, and a detailed analysis on the distribution and dynamics of policy players' power resources and strategic actions will help more precisely identify the sources of policy change and add invaluable strength to theoretical arguments.

Bibliography

Alder, Emanuel, and Peter M. Haas. 1992. "Conclusion: Epistemic Communities, World Order, and the Creation of Reflective Research Program, International Organization." *Knowledge, Power, and International Policy Coordination* 46(1): 367 – 390.

Arnold, R. Douglas. 1979. *Congress and the Bureaucracy.* New Haven, CT: Yale University Press.

Arthur, W. Brian. 1989. "Competing Technologies, Increasing Returns, and Lock-In by Historical Events." *Economic Journal* 99(394):116-131.

Arthur, W. Brian. 1994. *Increasing Returns and Path Dependence in the Economy.* Ann Arbor, MI: University of Michigan.

Association of BC Forest Professionals (ABCFP). 2005. *Forest Legislation and Policy Reference Guide* http://www.abcfp.ca/practice_development/continuing_education/policy_seminars.asp (Last accessed April 22, 2009)

Bachrach, Peter, and Morton S. Baratz. 1962. "The Two Faces of Power." *American Political Science Review* 56 (4): 947 –52.

Baumgartner, Frank R., and Beth L. Leech. 1998. *Basic Interests: The Importance of Groups in Politics and in Political Science.* Princeton, NJ: Princeton University Press.

Baumgartner, Frank R., and Bryan D. Jones. 1991. "Agenda Dynamics and Policy Subsystems." *The Journal of Politics* 53 (4): 1044 – 74.

Baumgartner, Frank R., and Bryan D. Jones. 1993. *Agendas and Instability in American Politics.* Chicago, IL: University of Chicago Press.

BC Forest Practices Board. 1999. "FPB welcomes identified wildlife management strategy and calls for implementation of other code measures to protect wildlife and biodiversity." News Release, February19, 1999.

BC Forest Practices Board. 2007 (March). *Forestry Audit: British Columbia Timber Sales Forest St. John Pilot Project Area.* PB/ARC/87.

BC Forest Practices Board. 2007. *Forestry Audit: British Columbia Timber Sales Fort St. John Pilot Project Area.* FPB/ARC/87. Http://www.fpb.gov.bc.ca/audits/ARC87/Arc87.pdf (accessed March 30, 2007).

BC Forest Resources Commission. 1991 (April). *The Future of our Forests.* Prepared for the BC Ministry of Forests.

BC Forest Sector Strategy Committee Task Force. 1995 (September). *A Forest Management Strategy and Action-Plan for British Columbia.* A Task Force Report prepared for the BC Forest Sector Strategy Committee and BC Ministry of Forests and Forest Renewal BC.

BC Forest Service. 1992 (October). *Options Report.* BC Ministry of Forests Fort Nelson Forest District.

BC Forest Service. 1996 (December). *Operational Planning Review – A Report Submitted to the Joint Forest Practices Code Steering Committee.*

BC Integrated Land Management Bureau. 1997a. *Fort Nelson Land and Resource Management Plan.* Http://ilmbwww.gov.bc.ca/slrp/lrmp/fortstjohn/fort_nelson/plan/index.html (accessed November 29, 2007).

BC Integrated Land Management Bureau. 1997b. *Fort St. John Land and Resource Management Plan.* Http://ilmbwww.gov.bc.ca/slrp/lrmp/fortstjohn/fort_stjohn/plan/toc.htm (accessed November 29, 2007).

BC Legislative Library. 2002. *Electoral History of British Columbia, Supplement, 1987-2001.*

BC Market Outreach Network. 2004 (October). *BC Forest Facts: Managing the Boreal Forest in BC.* Http://www.bcforestinformation.com/publications/documents/FSA-038-E.pdf (last accessed April 22, 2009).

BC Ministry of Energy and Mines. n. d. *Oil and Gas in British Columbia.* Http://www.em.gov.bc.ca/dl/oilgas/pub/fue_panel.pdf (accessed December 5, 2007).

BC Ministry of Environment, Lands and Parks and BC Ministry of Forests. 1999. "Identified Wildlife Management." News Release, February 19, 1999.

BC Ministry of Environment, Lands and Parks. 1996 (April). *Wildlife Harvest Strategy: Improving British Columbia's Wildlife Harvest Regulations.* iv +73p. Http://www.env.gov.bc.ca/wld/documents/wildlife_harvest_strategy99.pdf (last accessed April 22, 2009)

BC Ministry of Forests and BC Ministry of Environment and Parks. 1995a. *Forest Practices Code of British Columbia: Biodiversity Guidebook.* Victoria, BC: BC Forest Service. Ix + 99 p.

BC Ministry of Forests and BC Ministry of Environment and Parts. 1995b. *Forest Practices Code of British Columbia: Silviculture Prescription Guidebook.* Victoria, BC: BC Forest Service. Viii+72p.

BC Ministry of Forests and Range. 2005 (July 21). *Apportionment System TFL Summary Report.* Http://www.for.gov.ca/hth/apportionment/Documents/Aptr021.pdf (accessed May 17, 2007)

BC Ministry of Forests and Range. 2006a (November). *Fort Nelson Timber Supply Area: Rationale for Allowable Annual Cut (AAC) Determination.* Http://www.for.gov.bc.ca/hts/tsa/tsa08/tsr3/08ts06ra.pdf (accessed May 17, 2007)

BC Ministry of Forests and Range. 2006b. "Fort Nelson Timber Supply Area Harvest Increased." Chief Forester's Office News Release (2006FOR0167-001360). November 10, 2006. Http://www2.news.gov.bc.ca/news_releases_2005-2009/2006FOR0167-001360.htm (accessed November 30, 2007)

BC Ministry of Forests, BC Ministry of Environment, Lands and Parks, and BC Ministry of Energy and Mines. 1998. *Streamlining the Code.* Victoria, BC: Province of British Columbia.

BC Ministry of Forests. 1993a (July). *Fort Nelson Timber Supply Area Timber Supply Analysis Report Aspen Resources*. BC Ministry of Forests. Prince George Forest Region. Planning Section.

BC Ministry of Forests. 1993b. *British Columbia Forest Practices Code: Rules.* Victoria, BC.

BC Ministry of Forests. 1994. *British Columbia Forest Practices Code: Draft Regulations and Proposed Standards.* Victoria, BC.

BC Ministry of Forests. 1997a (July). *Fort Nelson Timber Supply Area Information Report.* 12p.

BC Ministry of Forests. 1997b. *Summary of Timber Supply Review Results 1992-1996.* Victoria BC: Ministry of Forests.

BC Ministry of Forests. 1997c. *British Columbia Jobs and Timber Accord.* Victoria, BC: Ministry of Forests.

BC Ministry of Forests. 1998a. "Innovative Forest Practices Agreement (IFPA) – improving forest productivity and providing jobs." News Release. July 17, 1998.

BC Ministry of Forests. 1998b. "BC government delivers stumpage adjustment to cut forest costs." News Release. May 28, 1998.

BC Ministry of Forests. 1998d. "Stumpage rates decreased again." News Release. October 1, 1998.

BC Ministry of Forests. 1998e. "Forest Action Plan Boots Small Forest Businesses." News Release. November 27, 1998.

BC Ministry of Forests. 1998f. "Stumpage Rates Adjusted." News Release. December 30, 1998.

BC Ministry of Forests. 1999a. "Forest Action Plan Brings Industry Efficiencies." News Release. January 19, 1999.

BC Ministry of Forests. 1999b. "Zirnhelt concerned by forest sector losses." News Release. March 11, 1999.

BC Ministry of Forests. 1999c. "Legislation Allows Testing of Performance-Based Forest Practices Code." News Release. June 21, 1999. Reference # 1999: 072.

BC Ministry of Forests. 1999d. *Enhanced Forest Management Pilot project Review.* Prepared by *PRICEWATERHOUSECOOPERS.* November 1999.

BC Ministry of Forests. 2000a (March). *Fort Nelson Timber Supply Area Analysis Report.* Victoria, BC. BC Ministry of Forests. Vi + 132p.

BC Ministry of Forests. 2000b (March). *Fort Nelson Timber Supply Area Public Discussion Paper.* Victoria, BC: Ministry of Forests. 6p.

BC Ministry of Forests. 2000c (March 17). *RBC Pilot Projects - Project Leader's Update 1*. Http://www.for.gov.bc.ca/hfp/rbpilot/update1.pdf

BC Ministry of Forests. 2001a. *Updated Prince George Forest Region Mixedwood Standard Operating Procedures.* Internal Document. March 9, 2001.

BC Ministry of Forests. 2001b. *Forest Development Plan Guidebook.* 2nd edition. Victoria, BC: Ministry of Forests. 104p.

BC Ministry of Forests. 2001c. *Annual report of the Ministry of Forests for the fiscal year ended March 31, 1999.* Victoria BC: Ministry of Forests. 57p.

BC Ministry of Forests. 2001d. "BACKGROUNDER – Forest Practices Code Pilot Projects." News Release. April 5, 2001. Http: www2.news.gov.bc.ca/archive/pre2001/2001/2001nr/2001053.asp (last accessed April 22, 2009).

BC Ministry of Forests. 2002 (June). *Fort St. John Timber Supply Area Public Discussion Paper.* Victoria, BC: Ministry of Forests. 10p.

BC Ministry of Forests. n. d. (a). *Evolution of the Forest Practices Code.* Http://www.for.gov.bc.ca/hfp/archives/legislation/FRCINFRO.HTM (last modified March 24, 1997; accessed January 13, 2007).

BC Ministry of Forests. n. d. (b). *Prince George Forest Region, Resource Management Plan #1 for the Fort St. John Timber Supply Area: January 1, 1987 – December 31, 1991.* Prepared and recommended by Prince George Forest Region.

BC Ministry of Forests.1991. *Review of the Timber Supply Analysis Process for BC Timber Supply Areas, Final Report.* Prepared by L. Pedersen and D. Errico. ii + 19p.

BC Ministry of Forests.1998c. "Stumpage rate decrease a welcome relief – Zirnhelt." News Release. April 1, 1998

BC Ministry of Sustainable Resource Management. 2004. *A Practical Guide to Effective Coordination of Resource Tenures*.1st edition. Resource Management Division. vii+88p.

BC Professional Accountability Task Force.1996. *Professional Accountability Task Force Report to the Association of British Columbia Professional Foresters, the BC Ministry of Forests, and the Council of Forest Industries*. Submitted on October 15, 1996.

Beatty, Jim 1998. "BC economy stifled by red tape: Minister: Government will try to cut regulations that hurt business, Joy MacPhail says." *The Vancouver Sun*, October 7, 1998, p.A.1.FRO.

Beatty, Jim and Gordon Hamilton. 1998. "Forest Industry crisis escalates amid closures: Five BC sawmills have shut down over the last week, forcing the provincial government to reevaluate the future of the industry." *The Vancouver Sun*, Oct 3, 1998, p. A.3.

Bennett, Colin J. and Michael Howlett. 1992. "The Lessons of Learning: Reconciling Theories Policy Learning and Policy Change." *Policy Sciences* 25(3): 275 – 94.

Bernhagen, Patrick and Thomas Bräuninger. 2005. "Structural power and public policy: A Signaling Model of Business Lobbying in Democratic Capitalism." *Political Studies* 53(1): 43 – 64.

Blackmore, Chris. 2007. "What kinds of knowledge, knowing and learning are required for addressing resource dilemmas? A theoretical overview." *Environmental Science & Policy* 10 (6): 512- 525.

Block, Fred. 1977. "The Ruling Class Does Not Rule: Notes on the Marxist Theory of the State." *Socialist Revolution* 33: 7(3) (May-June, 1977): 6-28.

Blyth, Mark M. 1997. "Review: "Any More Bright Ideas?" The Ideational Turn of Comparative Political Economy" Reviewed Work(s): Ideas and Foreign Policy: Belief, Institutions and Political Change by Judith Goldstein and Robert Keohane; Ideas and Institutions: Developmentalism in Argentina and Brazil by Kathryn Sikkink. *Comparative Politics* 29(2 Jan. 1997): 229- 50.

Blyth, Mark M. 1999. "*Great Transformations: Economic Ideas and Political Change in the Twentieth Century.*" Ph.D. Dissertation. Columbia University.

Brand, David G. and Gordon F. Weetman. 1986. "Standards for Regeneration Establishment in Canada: A Case study for Douglas-fir." *Forestry Chronicle 62(2):* 84-90.

Breakthrough Forest Solutions Inc. 2006. *Evaluation of the Innovative Forestry Practices Agreements Program. S*ubmitted on May 23, 2006.

Brewster, Laurel & Jessica Clogg. 2000 (November 6). *Comment on Stillwater pilot project regulation on behalf of BCEN* (meeting held on Nov 2, 2000). Internal document. BC Ministry of Forests.

Brint, Steven. 1994. *In an Age of Experts: the changing role of professionals in politics and public life.* Princeton, NJ: Princeton University Press. x+278p.

Campbell, John L. 1998. "Institutional analysis and the role of ideas in political economy." *Theory and Society* 27(3): 377 – 409.

Campbell, John L. 2002. "Ideas, Politics, and Public Policy." *Annual Review of Sociology* 28(1): 21 – 38.

Canadian Centre for Policy Alternatives (CCPA). 2000a. "Crisis in BC's resource sectors driven mainly by global factors – New CCPA study highlights failure of resource corporations to adequately invest in the province." Press Release. July 26, 2000. Http://www.policyalternatives.ca/news/2000/07/pressrelease242/?pa=A5671525 (last accessed on April 22, 2009).

Canadian Centre for Policy Alternatives (CCPA). 2000b. *BC Forest industry needs to do more with its wood.* Editorial. August 1, 2000. Http://www.policyalternatives.ca/editorials/2000/08/editorial739/?pa=A5671525 (last accessed on April 22, 2009).

Canadian Forest Products Ltd. 1999. *Proposal for a Performance Based Pilot Project (Within the Fort St. John Timber Supply Area, Prince George Forest Region).* Submitted on behalf of the pilot project partners. Revised October 8, 1999 and January 31, 2000.

Canadian Forest Products Ltd. 2001 (January 24). *Reply to the British Columbia Environmental Network Review of the Fort St. John Pilot Project.* Prepared on behalf of the pilot project participants: Canadian Forest Products Ltd., Louisiana-Pacific Canada ltd., Slocan Forest Products Ltd., and Ministry of Forests Small Business Forest Enterprise Program, Fort St. John District. Http://www.for.gov.bc.ca/hfp/rbpilot/canfor_ftstjohn/Reply%20to%20BCEN%20Report.pdf (last accessed on April 22, 2009).

Canadian Forest Products Ltd. 2004 (March). *Fort St. John Pilot Project Sustainable Forest Management Plan*. Submitted for approval to the Regional Manager, Ministry of Forests and the Regional Director, Ministry of Water, Land and Air Protection, on behalf of the pilot project participants: Canadian Forest Products Ltd., Louisiana-Pacific Canada ltd., Slocan Forest Products Ltd., and Ministry of Forests Small Business Forest Enterprise Program, Fort St. John District. Also available at the Fort St. John Pilot Project website, http://www.fsjpilotproject.com/sfmp.html (accessed September 12, 2007).

Canadian Forest Products Ltd., Slocan Forest Products Ltd., Louisiana-Pacific Canada ltd., and Ministry of Forests Small Business Forest Enterprise Program, Fort St. John Forest District. 2001 (August*). Fort St. John Pilot Project Detailed Proposal.* Http://fsjpilotproject.com/project.html (last accessed April 22, 2009).

Canadian Press. 1996. “BC forest code raising costs.” *The Globe and Mail,* January 3, 1996.

Canadian Press. 1997. “BC seeks quick deal on forest practices will relax rules if firms create jobs.” *The Globe and Mail* (March 3, 1997), p.B3.

Canadian Press. 1998. “BC environment record under attack.” *The Globe and Mail,* April 28, 1998, p. A6.

Cashore, Benjamin, Auld, Graeme, and Newsom, Deanna. 2004. *Governing through markets: forest certification and the emergence of non-state authority*. New Haven, Connecticut: Yale University Press.

Cashore, Benjamin, George Hoberg, Michael Howlett, Jeremy Rayner, and Jeremy Wilson. 2001. *In Search of Sustainability: British Columbia Forest Policy in the 1990s.* Vancouver, BC: University of British Columbia Press. 340p.

Cashore, Benjamin. 2002. “Legitimacy and the privatization of environmental governance: how non-state-market-driven (NSMD) governance systems gain rule-making authority.” *Governance,* 15(4):503–29.

Clogg, Jessica and Laurel Brewster. 2000 (December 21). *Review of Fort St. John Pilot Project.* On behalf of the Forest Caucus of the BC Environmental Network. Http://www.wcel.org/forestry/FSJReview.html (last accessed April 22, 2009).

Cobb, Roger W. and Charles D. Elder. 1983. *Participation in American Politics: The Dynamics of Agenda-Building.* 2nd edition. Baltimore, MD: The Johns Hopkins University Press. 210p.

Coleman, James Samuel. 1990. *Foundations of Social Theory.* Cambridge, Massachusetts: Harvard University Press. Xvi+993p.

Coleman, William Donald and Grace Darlene Skogstad (eds.). 1990. *Policy Communities and Public Policy in Canada: A Structural Approach.* Proceedings of a conference held at the University of Toronto, May 1989. Mississauga, ON: Copp Clark Pitman. 338p.

Comeau, Philip G., Richard Kabzems, John McClarnon, and Jean L.Heineman. 2005. “Implications of selected approaches for regenerating and managing western boreal mixedwoods.” *The Forestry Chronicle* 81(4): 559-74.

Constantineau, Bruce 1998. “Business Council tells why Alberta is outpacing BC.” *The Vancouver Sun*, Nov 5, 1998, p. A.1.FRO.

Cook, Karen S. and Richard M. Emerson. 1978. “Power, Equity and Commitment in Exchange Networks.” *American Sociological Review* 43(5): 721-39.

Cook, Tracey 1998. “Sustainable Practices? An Analysis of BC’s Forest Practices Code.” In *The Wealth of Forests: Markets, Regulations, and Sustainable Forestry. ed.* Chris Tollefson. Vancouver, BC: University of British Columbia Press.

Cooperman, Jim. 1998. *Keeping the Special in Special Management Zones: A Citizens Guide.* BC Spaces for Nature. 118p. Http://www.greatwildspaces.org/pdf_files/smz.pdf (last accessed April 22, 2009).

Cooperman, Jim. n. d.. “The Roots of a Network: A Thirty Year Retrospective.” Http://www.ecobc.org/who_we_are (accessed on January 25, 2008).

Council of Forest Industries (COFI). 1997. “Dramatic Increases in Forest Industry Wood Costs Confirmed.” News Release. April 4, 1997.

Council of Forest Industries (COFI). 1998a. “BC Forest Industry welcomes stumpage cuts.” Press Release. May 28, 1998.

Council of Forest Industries (COFI). 1998b. “BC Forest Industry Returns Dismal.” Press Release. June 5, 1998.

Council of Forest Industries (COFI). 1998c. “COFI meets with Premier Clark.” Press Release. November 30, 1998.

De Laat, Maarten F. and Robert-Jan Simons. 2002. “Collective learning: Theoretical perspectives and ways to support networked learning.” *Vocational Training (European Journal)* 27:13 – 24. Http://www2.trainingvillage.gr/download/journal/bull-27/27_en_delaat.pdf (accessed August 15, 2007).

DeLong, S. Craig, Annas, R. M., and Stewart, A. C., 1991. “Boreal White and Black Spruce Zone.” In *Ecosystems of British Columbia*. D. V. Meidinger and J. Pojar, Special Report Series. Victoria, BC: Research Branch, Ministry of Forests, Chapter 16.

DeLong, S. Craig. 2002. *Natural Disturbance Units of the Prince George Forest Region: Guidance for Sustainable Forest Management.* Unpublished report. Ministry of Forests, Prince George, BC.

Dowding, Keith M. 1991. *Rational Choice and Political Power.* Brookfield, Vt.: Edward Elgar Publishing Limited. Vii+200p.

Dowding, Keith M. 1995. “Model or Metaphor? A Critical Review of the Policy Network Approach.” *Political Studies* XLIII: 136 – 58.

Duffy, Andrew. 1997. “A British Columbia think-tank says Canada’s environment.” *CanWest News,* March 28, 1997, p.1.

Elster, Jon. 1989a. *The Cement of Society: a study of social order.* Cambridge & New York: Cambridge University Press.

Elster, Jon. 1989b. *Nuts and Bolts for the Social Sciences.* Cambridge & New York: Cambridge University Press.

Etheredge, Lloyd S. 1981. “Government Learning: An Overview.” In *The Handbook of Political Behavior,* ed. Samuel L. Long. New York, NY: Plenum Press. Vol. 2, 73-78.

Fenger, Mike, Stewart Guy, Peter Bradford, Todd Manning, and John Cooper. 2006. *Wildlife & Trees in British Columbia.* Vancouver, BC: Lone Pine Publishing. 336p.

FORREX-Firth Hollin Resource Science Corp. 2004. *Robson Valley Enhanced Forest Management Pilot Project: Project Review (1999-2003) and Performance Measure Development (2003- 2008).* File Report 04-02. Http://www.forrex.org/publications/other/FileReports/fr04-01.pdf (last accessed April 22, 2009).

Fort St. John Forest District. 1996. *Fort St. John Timber Supply Area Public Discussion Paper.* Victoria, BC: BC Ministry of Forests.

Gage, Andrew. 2002 (April 19). *Review of the Draft Riverside TFL 49 Results-Based Pilot Project* .Internal document of the BC Ministry of Forests.

Gallon, Gary 1997. “MacBlo Losses.” *The Globe and Mail*, February, 27, 1997. Rob Letter, p.B2.

Garrett, Geoffery and Barry R. Weingast. 1993. "Ideas, Institutions and Interest: Constructing the European Community's Internal Market" In *Ideas and Foreign Policy, Beliefs, Institutions, and Political Change.* Goldstein. Judith Goldstein and Robert O. Keohane, eds. Ithaca, NY: Cornell University Press.

Gauthier, Gerald 2000. *Alaska Highway News.* Fort St. John BC. Feb 4, 2000, p.A.1.FRO.

Gerring, John. 2004. "What Is a Case Study and What is It Good for?" *American Political Science Review* 98(2): 341-54.

Girvan, James and John Pousette. 1990. *A Technical Review of Inventory and Allowable Annual Cut - Fort St. John Timber Supply Area.* Prepared by Industry Service Ltd. Prince George, BC for the BC Forest Resources Commission.

Goldstein, Judith and Robert O. Keohane, eds. 1993. *Ideas & Forest Policy, Beliefs, Institutions, and Political Change.* Ithaca & London: Cornell University Press.

Goldstein, Judith. 1993. *Ideas, Interests, and American Trade Policy.* Ithaca, NY: Cornell University Press. 268p.

Gray, Virginia and David Lowery. 1996. *The population Ecology of Interest Representation: Lobbying Communities in the American States.* Ann Arbor, MI: University of Michigan Press. 320p.

Grover, Brigitte E. and Ken J. Greenway. 1999. "The ecological and economic basis for mixedwood management." In T.S. Veeman, D.W. Smith, B.G. Purdy, F.J. Salkie, and G.A. Larkin (eds.), *Proceedings of 1999 sustainable forest management network conference: Science and practice: sustaining the boreal forest.* February, 14 – 17, 1999. University of Alberta. Edmonton, Alberta, Canada. P. 419-28.

Haas, Peter M. (ed.) 1992b (Winter). Special issue on Epistemic Communities. *International Organization* 46.

Haas, Peter M. 1992a." Introduction: Epistemic communities and international policy coordination." *International Organization* 46 (1):1 – 35.

Hall, Peter A. 1986. *Governing the Economy: The Politics of State Intervention in Britain and France.* New York, NY: Oxford University Press. 341p.

Hall, Peter A. 1988. "*Policy paradigms, social learning and the state."* A paper presented to the International Political Science Association, Washington, DC.

Hall, Peter A. 1989. "Conclusion: The Political Power of Economic Ideas." In Peter A. Hall (ed.), *The Political Power of Economic Ideas: Keynesianism Across Nations.* Princeton, NJ: Princeton University Press.

Hall, Peter A. 1990. "Policy Paradigms, Experts, and the State: The Case of macroeconomic Policy-making in Britain." In Stephen Brooks and Alain-G Gagnon (eds.), *Social Scientists, Policy, and the State.* New York, NY: Praeger.

Hall, Peter A. 1992. "The movement from Keynesianism to monetarism: Institutional analysis and British Economy policy in the 1970s." In Sven Steinmo, Kathleen Thelen, and Frank Longstreth (eds.), *Structuring politics: Historical institutionalism in comparative analysis.* New York, NY: Cambridge University Press.

Hall, Peter A. 1993. "Policy Paradigms, Social Learning, and the State: The case of Economic Policymaking in Britain." *Comparative Politics* 25 (3):275-96.

Hall, Peter A. and Rosemary C. R. Taylor. 1996. "Political Science and the Three New Institutionalisms." *Political Studies* 44 (5): 936-57.

Hamilton, Gordon 1998a. "BC chops red tape to save forestry firms $300 million: Minister Claims paperwork is halve, as environmentalists say move's a see-out." *The Vancouver Sun.* April 3, 1998. P. A.1.FRO.

Hamilton, Gordon 1998b. "Cut Timber rules some more, group urge: Forest industries council, municipalities association team up to lobby for an industry they say is being stifled by over-regulation." *The Vancouver Sun.* September 25, 1998. P. F.2.

Hamilton, Gordon 1998c. "Industry "falldown effect" cited by environmentalists: Crisis in the forests has more to do with business cycles and loss of timber, news conference told." *The Vancouver Sun.* December 12, 1998. P. E.5.

Hamilton, Gordon 1998d. "Changes to forest code should help, survey says." *The Vancouver Sun.* August 29, 1998. P. H.4.

Hamilton, Gordon 1998e. "COFI set to take sharp policy turn: Heading industry into more of a free-market stand could mean end to softwood deal." *The Vancouver Sun.* Oct 6, 1998. P.D.1 FRO.

Hamilton, Gordon 2008a. "Canfor closing two mills in Fort Nelson." *The Vancouver Sun.* January 18, 2008.

Hamilton, Gordon 2008b. "Canfor reverses decision on closing Fort Nelson mill." *The Vancouver Sun.* February 25, 2008.

Harper, G. and R. Kabzems. 2003. *Growing-space management in boreal mixedwood forests – The Establishment of EP1192.01, Fort Nelson River Site.* Extension Note No. 64. Http: www.for.gov.bc.ca/hfd/pubs/Docs/En/En64.htm (last accessed April 22, 2009)

Haysom, Ian 1997. "How did the NDP in BC." *CanWest News*, June 12, 1997, p.1.

Heclo, Hugh. 1974. *Modern Social Politics in Britain and Sweden: From Relief to Income Maintenance*, New Haven, CT: Yale University Press. Xii + 349p.

Heclo, Hugh. 1977. *A Government of Strangers: executive politics in Washington.* Washington, DC: The Brookings Institution. 272p.

Heintz, H. Theodore Jr. and Hank C. Jenkins-Smith. 1988. "Advocacy coalitions and the practices of policy analysis." *Policy Sciences* 21: 263 – 77.

Hibbard, Michael and Jeremy Madsen. 2003. "Environmental resistance to place-based collaboration in the U.S. West."*Society and Natural Resources* 16(8): 703-18.

Higgins, Charlene. 1999. "Innovative forest practice agreements – What could be done that would be innovative." *Forestry Chronicle* 75(6): 939-42.

Hoberg, George. 1992. *Pluralism by Design, Environmental Policy and the American Regulatory State.* New York, NY: Praeger Publishers. x + 240p.

Hoberg, George. 1996a. "Putting Ideas in Their Place: A Response to "Learning and Change in the British Columbia Forest Policy Sector."" *Canadian Journal of Political Science* 29 (1): 135-44.

Hoberg, George. 1996b. “The Politics of sustainability: Forest Policy in British Columbia.” In R. Kenneth Carty (ed.), *Politics, Policy, and Government in British Columbia.* Pp. 273-89.

Hoberg, George. 1998. “Distinguishing learning from other sources of policy change; the case of forestry in the Pacific Northwest.” Presented at the annual meeting of the American Political Science Association, Boston, MA.

Hoberg, George. 2000. “How the Way We Make Policy Governs the Policy We Make.” In Debra Salazar and Donald K. Alper (eds.), *Sustaining the Forests of the Pacific Coast: Forging Truces in the War in the Woods.* Vancouver, BC: University of British Columbia Press.

Hoberg, George. 2001a. “Policy Cycles and Policy Regimes: A Framework for Studying Policy Change.” In B. Cashore, G. Hoberg, M. Howlett, J. Rayner, and J. Wilson: *In Search of Sustainability: British Columbia Forest Policy in the 1990s.* Vancouver, BC: UBC Press. Chapter One.

Hoberg, George. 2001b. “The 6 Percent Solution: The Forest Practices Code. “ In B. Cashore, G. Hoberg, M. Howlett, J. Rayner, and J. Wilson: *In Search of Sustainability: British Columbia Forest Policy in the 1990s.* Vancouver, BC: UBC Press. Chapter Three.

Hoberg, George. 2001c. “Don’t Forget Government Can Do Anything: Policies toward Jobs in the BC Forest Sector. “ In B. Cashore, G. Hoberg, M. Howlett, J. Rayner, and J. Wilson: *In Search of Sustainability: British Columbia Forest Policy in the 1990s.* Vancouver, BC: UBC Press. Chapter Eight.

Hobson, Keith A. and Erin Bayne. 2000. “Breeding Bird Communities in Boreal Forest of Western Canada: Consequences of “Unmixing” the Mixedwoods.” *The Condor* 102(4): 759 – 69.

Holling, Crawford S. (ed.). 1978. *Adaptive environmental assessment and management.* London, England: John Wiley and Sons, xviii+377p

Holmes, Karen (ed.).. 2002. *Low-Access Forests and their Level of Protection in North America.* Global Forest Watch and World Resources Institute.

Howlett, Michael (ed.). 2001, *Canadian Forest Policy: Adapting to Change.* Toronto, ON: University of Toronto Press. x+446p.

Howlett, Michael and Jeremy Rayner. 1995. “Do ideas matter? Policy network configurations and resistance to policy change in the Canadian Forest Sector.” *Canadian Public Administration* 38(3): 382 – 410.

Howlett, Michael and M. Ramesh. 1995. *Studying Public Policy: Policy Cycles and Policy Subsystems.* Don Mills, ON: Oxford University Press Canada. vi+239p.

Howlett, Michael. 2002. “Do networks matter? Linking Policy Network Structure to Policy Outcomes: Evidence from Four Canadian Policy Sectors 1990 – 2000.” *Canadian Journal of Political Science* 35(2): 235 -67.

Hunter, Justine 1998. “Clark told to watch from the sidelines: Business summit to show NDP can’t blame all the problems on “Asian flu.”” *The Vancouver Sun*, Oct 15, 1998, p.A.3.

Hunter, Justine and Lori Cullbert. 1998. “BC forestry loses 15,500 jobs in a year.” *The Vancouver Sun*, July 16, 1998, p.A.1 FRO.

Hunter, Justine and Tom Barrett. 1997. "NDP blamed as business investment, economic growth drop." *The Vancouver Sun*, December 29, 1997, p.B.4.

Ingram, Mathew 1998. "Glen Clark's wake-up call." *The Globe and Mail*, February 5, 1998, p.B2.

Innes, John L. 2003. "The incorporation of research into attempts to improve forest policy in British Columbia." *Forest Policy and Economics* 5: 349-59.

Ison, Ray, Niels Röling, and Drennan Watson. 2007. "Challenges to science and society in the sustainable management and use of water: investigating the role of social learning." *Environmental Science & Policy* 10(6): 499-511.

J.S. Thrower & Associates Ltd. 2002. *Stand Survey & Growth Modeling for the TFL 49 Results-Based Pilot Project – Year 3 Final Report.* Vancouver-Kamloops, BC.

Jackson, Robert H. 1993. "The Weight of Ideas in Decolonization." In Goldstein and Keohane (eds.*), Ideas and Foreign Policy, Beliefs, Institutions, and Political Change.* Ithaca and London: Cornell University Press.

Jacobsen, John Kurt. 1995. "Review: Much ado about ideas: The Cognitive Factor in Economic Policy." Review Works(s): Ideas, Interests and American Trade Policy by Judith Goldstein Ideas and Foreign Policy: Beliefs, Institutions and Political Change by Judith Goldstein and Robert Keohane International Organization by Peter Haas, and Ideas and Institutions: Developmentalism in Brazil and Argentina by Kathryn Sikkink. *World Politics* 47(2): 283 – 310.

Jenkins-Smith, Hank C. 1988. "Analytical debates and policy learning: analysis and change in the federal bureaucracy." *Policy Sciences* 21: 169-211.

Jenkins-Smith, Hank C. and Sabatier, Paul A. 1993. "The Dynamics of Policy Oriented Learning." In Paul A. Sabatier and Hank C. Jenkins-Smith (eds.), *Policy Change and Learning: An Advocacy Coalition Approach.* Boulder, Colo: Westview Press. Xii+290p.

John, Peter. 2003. "Is there life after policy streams, advocacy coalitions, and punctuations: using evolutionary theory to explain policy change?" *The Policy Studies Journal* 31(4): 481- 98.

Jordan, Andrew and John Greenaway. 1998. "Shifting Agendas, Changing Regulatory Structures and the 'New' Politics of Environmental Pollution: British Coastal Water Policy, 1955- 1995." *Public Administration* 76(4): 669 – 94.

Kennedy, Peter 1998. "BC cuts paperwork, red tape in overhaul of forest code." *Financial Post,* April 3, 1998, p.3.

Kingdon, John W. 1995. *Agendas, Alternatives and Public Policies.* New York, NY: HarperCollins College Publishers. 2nd Edition. xiv+254p.

KPMG, Thorau Parrin & Associated Ltd, and H.A. Simons Ltd. 1997 (April). *Financial State of the Forest Industry and Delivered Wood Cost Drivers*. Prepared for BC Ministry of Forests, Economic and Trade Branch. Victoria, BC: Ministry of Forests, Economics & Trade Branch. ii+99p.

KPMG. 2005 (March). *Forest certification Canadian: Forest Products Chetwynd TFL 48.* Http:/www.canfor.com/_resources/sustainability/Chetwynd_KPMG_Certification_Updates_Mar2005.pdf.

Lee, Kai N. 1993. *Compass and gyroscope: integrating science and politics for the environment.* Washington, D.C.: Island Press. xii+243p.

Lertzman Ken, Jeremy Rayner, and Jeremy Wilson. 1996a. "On the Place of Ideas: A Reply to George Hoberg." *Canadian Journal of Political Science* 29(1): 145 – 8.

Lertzman, Ken, Jeremy Rayner, and Jeremy Wilson. 1996b. "Learning and Change in the British Columbia Forest Policy Sector: A Consideration of Sabatier's Advocacy Coalition Framework." *Canadian Journal of Political Science* 29(1): 111 – 33.

Lindblom, Charles Edward and David K. Cohen. 1979. *Usable Knowledge: Social Science and Social Problem Solving.* New Haven, CT: Yale University Press. viii+129p.

Lindblom, Charles Edward. 1977. *Politics and Markets: the World's Political-Economic Systems.* New York, NY: Basic Books. xi+403p.

Lindblom, Charles Edward. 1982. "The Market as Prison." *The Journal of Politics* 44: 326- 36.

Litfin, KarenT. 1994. *Ozone discourses: Science and politics in global environmental cooperation*, New York, NY: Columbia University Press. x+257p.

Lush, Patricia 1995. "Forest industry assails BC policies NDP actions will cost 46,000 jobs, cut $5.1 billion from economy, report says." *The Globe and Mail*, September 29, 1995.

Lush, Patricia 1997a. "Forest companies to open books to BC cost study Industry says some firms may have to close." *The Globe and Mail*, January 21, 1997, p.B5.

Lush, Patricia 1997b. "BC losses 5500 jobs in forestry'96 Statscan survey puzzles unions." *The Globe and Mail*, February 28, 1997. *Report on Business*, p.B7.

Lush, Patricia 1997c. "Inside BC Cheaper logs not a clear-cut issue." *The Globe and Mail*, April 9, 1997, p.B6.

Lush, Patricia 1998a. "BC forest firms to reap savings Changes to code will cut logging costs." *The Globe and Mail*, April 3, 1998. Report on Business, p.B1.

Lush, Patricia 1998b. "BC watchdog unhappy with forest code changes." *The Globe and Mail*, April 8, 1998, p.B6.

Lush, Patricia 1998c. "'BC discount' seen vexing forestry firms Study shows east-west discrepancy in sector." *The Globe and Mail*, March 12, 1998, p.B7.

March, James G. and Johan P. Olsen. 1984. "The new institutionalism: Organizational Factors in Political Life." *American Political Science Review* 78(3): 734-49.

MarkTrend Research. 2000. Forest Issues Survey. Presented to COFI, October 23, 2000.

Marshall, Dale. 2000. *Follow the Money: Understanding the Crisis in BC's Resource Sector.* Report # 1 in a series of CCPA research papers on the BC resource sector. Canadian Centre for Policy Alternatives. Http://www.policyalternatives.ca/documents/BC_Office_Pubs/follow_money.pdf (last accessed on April 22, 2009).

Martin, Patrick, Shane Browne-Clayton, and Eleanor McWilliams. 2002. "A results-based system for regulating reforestation obligations." *The Forestry Chronicle* 78(4): 492- 98.

Martin, Patrick, Shane Browne-Clayton, and Greg Taylor. 2003. "Draft: Guidelines for implementation of the "Riverside system."" January 16, 2003. Prepared for BC Ministry of Forests, Forest Practices Branch. Http://www.for.gov.bc.ca/hfp/silviculture/multi_block/guidelines_for_implementing_multi-block.pdf (last accessed April 23, 2009).

Martin, Patrick, Shane Browne-Clayton, and Greg Taylor. 2004. "A results-based system for regulating reforestation obligations: Some development." *The Forestry Chronicle* 80(2): 201-8.

McCloskey, Michael 1996. "The skeptics: collaboration has its limits."*High Country News*, 28.

McDowell, Judith Alldritt and Susan Fergusson. 1996. *The Ecology of the Boreal White and Black Spruce Zone.* BC Ministry of Forests, Research Branch. Victoria, BC. Brochure. 6p. Http://www.for.gov.bc.ca/hfd/pubs/docs/Bro/bro49.pdf (accessed November 29, 2007).

McInnes, Craig 1995. "BC groups endorse forest plan." *The Globe and Mail (Canada)*, April 12, 1995.

McInnes, Craig 1998. "Clark admits changes needed for BC forestry to survive: The premier acknowledges the industry is in a serious crisis, and appoints a panel dedicated to finding some short-term solutions to a host of problems which he concedes is long-term complications." *The Vancouver Sun*, Oct 20, 1998, p.A.8.

Mihlar, Fazil 1998. "Mike Harris's four lessons in attracting jobs and investment: Glen Clark has a lot to learn." *Financial Post* (Toronto, Ontario), June 17, 1998, p.15.

Mitchell, Neil James. 1997. *The conspicuous corporation: Business, public policy, and representative democracy.* Ann Arbor: University of Michigan Press. 249p.

Morellato, Maria A. 1998. "*First Principles of Law on Aboriginal Title."* Prepared for Continuing Legal Education course materials *Aboriginal Title Update*, March 1998. Http://www.nativemaps.org/?q=node/2150 (last accessed April 23, 2009).

Navratil, S., K. Brantner, and J. Zasada. 1991. "Regeneration in the mixedwoods." In A. Shortreid (ed.), *Proceedings of a symposium: Northern Mixedwood '89.* Fort St. John, September 12-14, 1989. FRDA Report 164.

Nohrstedt, Daniel. 2005. "External shocks and policy change: Three Mile Island and Swedish nuclear energy policy." *Journal of European Public Policy* 12(6): 1041 – 59.

Nohrstedt, Daniel. 2008. "The Politics of Crisis Policymaking: Chernobyl and Swedish Nuclear Energy Policy." *The Policy Studies Journal* 36(2): 257 -78.

North, Douglass C. 1990a. *Institutions, Institutional Change and Economic Performance.* Cambridge & New York: Cambridge University Press. 152p.

North, Douglass C. 1990b. "A Transaction cost theory of Politics." *Journal of theoretical Politics* 2(4): 355 – 67.

North, Douglass C. 1993. *The New Institutional Economics and Development.* Economics Working Paper Archive at WUSTL. Economic History, # 9309002. Washington University. Http:// econwpa.wustl.edu

North, Douglass C. 2005. *Understanding the Process of Economic Change.* Princeton, NJ: Princeton University Press. 187p.

Ostrom, Elinor and Larry Kiser. 1982. "The three worlds of action: a metatheoretical synthesis of institutional approaches." In Elinor Ostrom (ed.) *Strategies of Political Inquiry*, Beverly Hills, CA: Sage. 222p.

Palmer, Vaughn 1998a. " Accord challenges the government on forest policy: BC's municipalities and its forest companies acknowledge the crisis in the woods and outline some reforms they want." *The Vancouver Sun.* September 25, 1998. P.A.22.

Palmer, Vaughn 1998b. "Forests policy comes full circle in discussion paper: In considering a 'results-based' Forest Practices Code, the Clark government looks at reversing a system of intense regulation." *The Vancouver Sun.* December 3, 1998. P.A.18.

Parkins, John R. 2006. "De-centering environmental governance: A short history and analysis of democratic processes in the forest sector of Alberta, Canada." *Policy Science* 39(2): 183 – 203.

Parsons, Wayne. 1995. *Public Policy: An Introduction to the Theory and Practices of Policy Analysis.* Cheltenham. U.K. & Northhampton, MA, USA: Edward Elgar Publishing Inc. xviii+652p.

Pearse, Peter H. 1998. "Economic Instruments for promoting Sustainable Forestry: Opportunities and Constraints." In *The Wealth of Forests: Market, Regulation and Sustainable Forestry,* edited by Christopher Tollefson. Vancouver, BC: UBC Press. Pp 19-41.

Pedersen, Larry. 1996. *Fort St. John Timber Supply Area Rationale for Allowable Annual Cut (AAC) Determination.* Victoria, BC: BC Ministry of Forests. 41p.

Pedersen, Larry. 2003 (March). *Fort St. John Timber Supply Area Rational for Allowable Annual Cut (AAC) Determination*. Victoria, BC: BC Ministry of Forests. 61p.

Peterson, E.B., R.D. Kabzems, R.D., and N. M. Peterson. 1989. *Hardwood Management Problems in Northeastern British Columbia: An information review.* FRR 066. Canada/BC Forest Resource Development Agreement (FRDA), Forestry Canada and BC Ministry of Forests. Victoria, BC. 77p.

Pierson, Paul. 1993. "Review: When Effect Becomes Cause: Policy Feedback and Political Change." *World Politics* 45(4): 595-628.

Pierson, Paul. 2000a. "Not Just What, but When: Timing and Sequence in Political Processes." *Studies in American Political Development* 14 (Spring):72-92.

Pierson, Paul. 2000b. "Increasing Returns, Path Dependence, and the Study of Politics." *American Political Science Review* 94(2): 251-67.

Pierson, Paul. 2000c. "The Limits of Design: Explaining Institutional Origins and Change." *Governance: An International Journal of Policy and Administration* 13(4): 475-99.

Pralle, Sarah Beth. 2006. *Branching Out, Digging In Environmental Advocacy and Agenda Setting.* Washington, D.C.: Georgetown University Press. xv+279p.

Prince George Forest Region Planning and Inventory Section. 1992 (June). *Fort Nelson Timber Supply Area Timber Supply Analysis Report.*

Prince George Forest Region Planning Section. 1993 (July). *Fort Nelson Timber Supply Analysis Area Timber Supply Analysis Report - Aspen Resource*

Przeworski, Adam and Michael Wallerstein. 1988. "Structural Dependence of the State on Capital." *American Political Science Review* 82 (1): 11-29.

Rayner, Jeremy. 2001. "Fine-Tuning the Settings: The Timber Supply Review." In B. Cashore, G. Hoberg, M. Howlett, J. Rayner, and J. Wilson: *In Search of Sustainability: British Columbia Forest Policy in the 1990s.* Vancouver, BC: UBC Press. Chapter Six.

Rochefort, David V. and Roger W. Cobb. 1993. "Problem Definition, Agenda Access, and Policy Choice." *Policy Studies Journa*l 21 (1): 56- 71.

Rose, Richard. 1988. "Comparative Policy Analysis: The Program Approach." In Mattei Dogan, (ed.) *Comparing Pluralist Democracies.* Boulder, Colo: Westview Press. Pp. 219 – 41.

Rose, Richard. 1991. "What is lesson- drawing?" *Journal of Public Policy* 11(1):3- 30.

Rose, Richard. 1993. Lesson-*Drawing in Public Policy: A Guide to Learning across Time and Space.* Chatham, NJ: Chatham House Publishers Inc. xvi+176p.

Sabatier, P.A., 1987, Knowledge, Policy-Oriented Learning, and Policy Change – An Advocacy Coalition Framework, *Knowledge: Creation, Diffusion, Utilization*, 8(4): 649 – 692

Sabatier, Paul A. (ed.) 1999. *Theories of the Policy Process*. Boulder. Colo: Westview Press. viii+289p.

Sabatier, Paul A. 1978. "The Acquisition and Utilization of Technical Information by Administrative Agencies." *Administrative Science Quarterly* 6: 386 – 411.

Sabatier, Paul A. 1988. "An advocacy coalition framework of policy change and the role of policy-oriented learning therein." *Policy Sciences* 21:129 – 68.

Sabatier, Paul A. 1991. "Toward Better Theories of the Policy Process." *Political Science and Politics* 24(2): 147 – 56.

Sabatier, Paul A. 1993. "Policy change over a decade or more." In Paul Sabatier and Hank Jenkins-Smith (eds.), *Policy change and learning.* Boulder, Colo: Westview Press.

Sabatier, Paul A. 1998. "The advocacy coalition framework: revisions and relevance for Europe." *Journal of European Public Policy* 5: 98 – 130.

Sabatier, Paul A. and Hank C. Jenkins-Smith (eds.). 1993. *Policy Change and Learning: An Advocacy Coalition Approach.* Boulder, Colo: Westview Press. xii+290p.

Sabatier, Paul A. and Hank C. Jenkins-Smith. 1999. "The Advocacy Coalition Framework: An Assessment." In Paul A. Sabatier (ed.) *Theories of the Policy Process.* Boulder. Colo: Westview Press

Schlager, Edella and William Blomquist. 1996. "A Comparison of Three Emerging Theories of the Policy Process." *Political Research Quarterly* 49(3): 651 -72.

Schlozman, Kay Lehman and John T. Tierney. 1986. *Organized Interests and American Democracy.* New York: HarperCollins College Div. 464p.

Scott-May, Cathy and Pat Field. 2004. *Adaptive Management: A Framework to Support Sustainable Forest Management.* Slocan Group, Quesnel Division. March 31, 2004. 46p. Http://www.for.gov.bc.ca/hfd/library/FIA/2004/FIA-04-05-0065.pdf (last accessed May 3, 2009).

Setterfield, Mark. 1993. "A Model of Institutional Hysteresis." *Journal of Economic Issues* 27(3): 755 – 74.

Sierra Legal Defence Fund (SLDF). 1998. *Profits or Plunder, Mismanagement of BC's forests.* A report on BC's major logging corporations. December 1998. Vancouver, BC: SLDF. 32p.

Sikkink, Kathryn. 1991. *Ideas and Institutions: Developmentalism in Brazil and Argentina.* Ithaca, NY: Cornell University Press. xvii, 263pp.

Smith, Adrian. 2000. "Policy networks and advocacy coalitions: explaining policy change and stability in UK industrial pollution policy?" *Environment and Planning, C: Government and Policy* 18: 95-114.

Smith, Mark A. 2000. "Sources of Business Power." In Mark A. Smith, *American Business and Political Power: Public Opinion, Elections, and Democracy*, Chicago and London: The University of Chicago Press. xii + 245p. Chapter 7.

Snetsinger, Jim. 2006. *Fort Nelson Timber Supply Area: Rationale for Allowable Annual Cut (AAC) Determination.* Victoria, BC: Ministry of Forests and Range. ii+55p. Http://www.for.gov.bc.ca/hts/tsa/tsa08/tsr3/08ts06ra.pdf (accessed May 17, 2007).

Stahl, Guenter. 2000 (March 17). *Results Based Code Pilots Progress Report.* BC Ministry of Forests and Range. Forest Practices Branch.

Stanbury, W.T. and Ian B. Vertinsky. 1998. "Governing Instruments for Forest Policy in British Columbia: A Positive and Normative Analysis." In *The Wealth of Forests: Market, Regulation and Sustainable Forestry*, edited by Chris Tollefson. Vancouver, BC: UBC Press. viii+396p. Pp.42-77.

Sterling, Justin. 1994. "Little Chopsticks, Big Waste." E*arth Island Journal* 9(3): 12 (Summer 94).

Stone, Deborah A. 1989. "Causal Stories and the Formation of Policy Agenda." *Political Science Quarterly* 104(2): 281 – 300.

Suchman, Mark C. 1997. "On Beyond Interest: Rational, Normative and Cognitive Perspectives in the Social Scientific Study of Law." Law and Society & Law and Economics: Common Ground Irreconcilable Differences, New Directions. *Wisconsin Law Review*, Issue 3: 475 – 501.

Swank, Duane. 1992. "Politics and the Structural Dependence of the State in Democratic Capitalist Nations." *American Political Science Review* 86(1): 38 - 54.

Takacs, David. 1996. *The Idea of Biodiversity: Philosophies of Paradise.* Baltimore: John Hopkins University Press. xix+393p.

Taylor, Brenda, Laurie Kremsater, and Rick Ellis. 1997. *Adaptive Management of Forests in British Columbia.* Victoria BC: Ministry of Forests-Forest Practices Branch. viiii + 93p. Http://www.for.gov.bc.ca/hfd/pubs/docs/sil/sil426.htm (accessed April 2, 2007).

Taylor, Brenda. 2000a (October). *An introduction to adaptive management.* Background Report for North Coast LRMP. iii+9p. Http://ilmbwww.gov.bc.ca/citbc/b-IntroAM-Taylor-Oct00.pdf (last accessed May 3, 2009).

Taylor, Brenda. 2000b (September). *Implementing Adaptive Management through North Coast LRMP*. Background Report for North Coast LRMP. Http://www.citbc.org/b-ImplAM-Taylor-Sep00.pdf (last accessed May 3, 2009). ii+32p.

The Globe and Mail. 1996a. *"BC forest policies threaten jobs: report."* November 25, 1996.

The Globe and Mail. 1996b. "Forestry profit to fall 25 per cent, analyst says." November 27, 1996.

The Globe and Mail. 1996c. "*BC forestry: What's wrong in the woods*." Editorial, December 23. P. A16.

The Globe and Mail. 1997. "*Green policy puts MacBlo in red.*"February 12, 1997.

The Globe and Mail. 1998. "*Ecology panel calls Clark 'Jurassic.'*" March 7, 1998. P. A9.

Walters, Carl J. 1986. *Adaptive management of renewable resources.* New York: McMillan. x+374p.

Walters, Carl J. and C. S. Holling. 1990. "Large-Scale Management Experiments and Learning by Doing." *Ecology* 71(6):2060- 8.

Wang, XiaoHu and Montgomery Wan Wart. 2007. When Public Participation in Administration Leads to Trust: An Empirical Assessment of Managers' Perception. *Public Administration Review* 67(2): 265 – 278.

Weale, Albert. 1992. *The new politics of pollution.* Manchester (UK) & New York (USA): Manchester University Press. xi &227p.

Weaver, R. Kent and Bert A. Rockman (eds.) 1993. *Do Institutions Matter? Government Capabilities in the United States and Abroad.* Washington DC: The Brookings Institute. Xiv & 498p.

Westland Resource Group. 1995. *A comparative review of the Forest Practices Code of British Columbia with fourteen other jurisdictions: Background report.* Prepared for British Columbia Ministry of Forests, Integrated Resources Policy Branch.

Wilson, Jeremy. 1998. *Talk and Log: Wilderness Politics in British Columbia*, 1965 – 96. Vancouver, BC: UBC Press. xxx & 452p.

Wilson, Jeremy. 2001. "Experimentation on a Leash: Forest Land Use Planning in the 1990s." In B. Cashore, G. Hoberg, M. Howlett, J. Rayner, and J. Wilson: *In Search of Sustainability: British Columbia Forest Policy in the 1990s.* Vancouver, BC: UBC Press. Chapter Two.

Wouters, Garry. 2000 (March). *Shaping Our Future – BC Forest Policy Review.* 90p. Victoria BC: Ministry of Forests. Http://www.for.gov.bc.ca/HFD/LIBRARY/Documents/wouters.pdf (last accessed May 3, 2009).

Yaffee, Steven Lewis. 1994. The *Wisdom of the Spotted Owl: Policy lessons for a New Century.* Washington, DC: Island Press. xxviii & 430p.

Yee, Albert S. 1996. "The Causal Effects of ideas on policies." *International Organization* 50(1): 69 – 108.

Yin, Robert K. 2003. *Case Study Research: Design and Method.* Third edition. Thousand Oaks, CA: Sage Publications, Inc. 179p.

Appendix A Interview Letter

Faculty of Graduate Studies

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(date)

Dear (Mr. or Ms.)

As part of a Ph.D. thesis, entitled "Forest Policy in Northeastern British Columbia from 1990s to early 2000s – Comparing Approaches to Explaining Policy Change", we are gathering information from policy experts, forest professionals, ecosystem and environmental scientists, industry leaders, community leaders, and interest group leaders regarding their opinions on the former Forest Practices Code of British Columbia Act (FPC) and the rationales of the Fort St John Pilot Project and the Fort St John Pilot Project Regulation. We are also interested in becoming conversant with the process regarding the deliberation and decision on the pilot project. Additionally, we are interested in knowing how policy experience and scholarly knowledge contributed to the decision process and also your view concerning the effects of the pilot project. To that extent, we also would appreciate your opinion regarding the rationales and effects of the Forest and Range Practices Act (FRPA) with respect to forest planning and ecosystem conservation. Information obtained in this study will be used to profile the fundamental reasons, concepts, opinions, concerns and effects of the result-based forestry practices and regulatory design in northeastern BC.

The enclosed letter, questionnaire, and consent form are being submitted to you and approximately sixty other experts, professionals and leaders who have been involved in the deliberation and decision processes regarding the Fort St John Pilot Project. We also wish to extend an invitation to you for a semi-structured interview to assist us in collecting added information outlined above. Your contribution to this research will be valuable given your experience and knowledge in the boreal region of British Columbia. Although participation is not mandatory, we would be appreciative if you would allow approximately ninety minutes to be interviewed by myself (Ms. Sharon Chang, the Co-Investigator). Interviews will be conducted in person and possibly by telephone. With your approval, I will record our interview to later transcribe and analyze our

discussion to identify the key issues. If you prefer not to be recorded, I will be happy to take detailed notes. A summary of our interview will be emailed to you to verify its accuracy.

Please review the enclosed questions pertaining to our interview. If you agree to be interviewed, please sign the enclosed consent form and return same to my attention by faxing it to my private fax: 1-866-593-4934. If you elect to send an email, please send it to changkmh@interchange.ubc.ca and include a brief statement granting your consent. I will follow up with a telephone call to confirm a time and place to conduct our interview.

The information you will have provided in our interview will only be used for this research analysis. If your request is to remain anonymous, your name and position will be coded and excluded from any written material pertinent to this study. Quotations will not be identified by source for publication without your written approval. You also may wish to review the summary of the interview to confirm anonymity. Once the study is complete, a summary of the study findings will be emailed to you for an opportunity to provide feedback pertinent to the findings.

We will be happy to answer any questions you may have. Please contact or call Ms. Sharon Chang (Co-Investigator, Ph.D. Candidate) through direct dial 1-866-493-4934 or email Ms. Chang at changkmh@interchange.ubc.ca. Dr George Hoberg (Primary Investigator, Professor Forest Policy) may be contacted at (604) 822-3728 or george.hoberg@ubc.ca. If you would like more information regarding your rights as a research participant, or have any other concerns, please contact the Research Subject Information Line in the UBC Office of Research Services at (604) 822-8598.

Your contribution to this study is respectfully appreciated.

Yours truly,

Ms. Sharon Chang
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Appendix B Interview Questionnaire

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August 29, 2006

Forest Policy in Northeastern British Columbia from 1990s to early 2000s – Comparing Approaches to Explaining Policy Change

Principal Investigator: George Hoberg, Professor, UBC Faculty of Forestry, (604) 822-3728. **Co-Investigator(s)**: Sharon Chang, PhD Candidate, Resource Management and Environmental Studies, UBC Institute for Resources, Environment and Sustainability (IRES), (604) 518-4857. The above-named research is Sharon Chang's doctoral thesis research. Part of the final thesis may be presented at conferences or published as journal articles.

Interview Questions

The following interview questions are designed to gather data from policy experts, forest professionals, ecosystem and environmental scientists, industry leaders, community leaders, and interest group leaders regarding the mechanics of the deliberation and decision on the Fort St John Pilot Project. The essay contained in each of the blocks briefly describes the evolution of forest practice policy concerning areas of interest for questions that follow. This interview is focusing on the mechanics of the Fort St John Pilot Project. It would be greatly appreciated if all interviewees thoroughly respond to all questions in Section I through IV. As to interviewees' opinions on the broader scale, responses pertinent to FRPA regulations regarding forest planning and ecosystem conservation, will be analyzed as supplementary information. Therefore, depending on time and interests, the interviewee may choose to address any of the questions in the section V as preferred.

I. General information pertaining to the interviewee

- A1 Name of the organization
- A2 Name and profession of the interviewee
- A3 Position held by the interviewee during his/her involvement in the Fort St John Pilot Project, how long with organization; current position and organization <if different>
- A4 Key role in the Fort St John Pilot Project
- A5 Date, time and duration of interview (in-person___ or Tel___)
- A6 Consent form provided_____; signed_____; collected by researcher_____; follow-up required?

1

II. Characteristics of Policy Actors

B1 Mandate, goals, roles and responsibility of the organization <request any written material available from the organization>

B2 Sources for obtaining skill, information and knowledge concerning forest practices; channels for external communication on forest policy issues

B3 Relative strength in influencing forest practices policy and how influence is usually exerted?

B4 Approach used in directing your views or opinions:

- to its constituency;
- to other policy actors/stakeholder;
- to decision makers;
- to the public

III. Exploring the mechanics of deliberation and decision on the Fort St John Pilot Project

The creation of Part 10.1 of the former FPC in 1999 allows license holders to experiment with alternative regulatory approach. The BC cabinet accepted the Fort St John Pilot Project (FSJPP) and draft regulation put forth by the PAG in late 2001; the Fort St John Pilot Project Regulation (FSJPPR) became in effect in 2001. Under the FSJPPR, a number of provisions of the FPC and its regulations were made inapplicable to the participants and areas of the pilot project, basic planning and performance requirements were regulated by the FSJPPR. Under the FSJPPR, forest practices of participants must be consistent with any SFMP, FDP, and SLP, and participants may submit a single FDP to the DM for approval. The SFMP must include landscape level strategies for patch size, seral stage distribution and adjacency, riparian management, and etc.; and may include strategies for reforestation and others. Each landscape level strategy must include applicable performance standards and a rationale on how the proposed strategy will provide at least equivalent protection for forest resources. In addition, the participants can specify in advance targets, landscape level strategies, mean stocked quadrant value, wildlife tree retention requirements and/or coarse woody debris retention requirements to override the applicable performance standards. All SLPs must be certified by a professional forester and be in consistent with applicable FDP or SFMP & FOS. As well, a SLP is no longer required for silviculture treatment of well-growing stands and harvesting or reforestation carried on naturally disturbed areas and backlog areas. Reforestation is no longer required for minor salvage/harvesting naturally disturbed areas and backlog areas. The DM may also give a variance if criteria specified in the regulation are satisfied.

C1 Is this summary consistent with the way you believe about the development of the FSJPP and FSJPPR?

C2. In your opinion, what would be the shortcomings and strengths of the former FPC regarding forest planning, reforestation, habitat conservation, and riparian protection?

C3 What rationale would best depict the idea of adding the Part 10.1 in the former FPC and the creation of the Fort St John Pilot Project? Which organizations or individuals initiated and advocated the idea? What was your organization's position on the Part 10.1 and the Fort St John Pilot Project when they were first proposed?

C4 Were there alternative policy options proposed? What reasoning was given? Which organizations or individuals put forth the alternative options? What were your positions on the alternative options? In your opinion, what were the main reasons for those attempts to become unsuccessful?

C5 Why and how did your organization become involved in the Part 10.1 of the former FPC, the FSJPPR, and/or the FSJPP? Were there any other venues (e.g., market, federal government, or international organizations) that also could be suitable for your organization to sway policy directions?

C6 In your opinion, what could best exemplify those provisions (summarized in the block) specified under the FSJPPR?

- **Requiring landscape level strategies for habitat protection (e.g., patch size, seral stage distribution and adjacency), riparian management, and reforestation**
- **Including performance standards and rationales in the SFMP**
- **Allowing specifying in advance performance targets and landscape level strategies that override the applicable performance standards**
- **Authorizing DM to give variance**
- **Permitting multi-block approach to establishing free growth stands**
- **No SLP requirement for silviculture treatment of well-growing stands and reforestation carried on naturally disturbed areas and backlog areas**
- **No reforestation requirement for minor salvage/harvesting naturally disturbed areas and backlog areas**

C7 In your opinion, how would these provisions affect forest planning and ecosystem conservation in the pilot project area? How could they affect your organization?

C8 How did your organization influence the deliberation and decision of the Part 10.1 of the former FPC, the FSJPPR, and/or the FSJPP? <e.g., time and resource allocated, tactic and information used for getting view across> In your opinion, which important obstacles had to be overcome?

C9 Prior to the rise of the policy idea, or while being deliberated, and/or formally institutionalized, have you observed any changes in interests, preferences or beliefs concerning forest planning and ecosystem conservation? Based on your observation, under what circumstances would there appear to be a change?

C10 Was there any instance in which your organization's beliefs came into conflict with your organization's interests? Please elaborate on the conflict and how it was dealt with?

C11 Was there any academic work or policy experience made available during the deliberations and decisions? <Ask interviewee to provide the source and how was it transmitted, viewed and used?>

C12 Please identify three of the most influential organizations and/or individuals and their impact areas concerning the origin, formalization, and/or implementation of this pilot project. What reasoning factors were used and, in your opinion, how effective and persuasive were they? How many of these influential players and reasoning factors were in your organization's best interest? How many of these influential players and reasoning factors were your organization's opponents?

C13 In your opinion, compared with previous or other policy deliberation and decision processes, were the ground-rules for deliberation more established and the decision rules more clearly settled? Were all parties being treated equally? Was there an agreement regarding compliance monitoring? Were sanctions used in cases of noncompliance?

C14 After your organization's involvement, what other stakeholders were you expected to continue interacting with? Has this (proportion) been increased, decreased, or maintained at the same level? Why?

C15 Have you observed any changes in your organization (e.g., conceptual beliefs, social and political preferences, operational procedures, or business expenses & performance) as a result of the Part 10.1, the FSJPPR, and/or the FSJPP?

C16 In your opinion, were the Part 10.1, the FSJPPR, and/or the FSJPP and the policy effects/outcomes resulting from mostly a conflict/interest compromise or a cognitive/belief arguing/reasoning process (i.e., development and diffusion of new information & knowledge)?

C17 In you opinion, would the Part 10.1, the FSJPPR, and/or FSJPP have helped to address the problem encountered in the area? Was it a fair choice for both BC's boreal forest and your organization? If so, why? Do you think we learn from this pilot project? If so, what and how?

C18 What is your opinion as to the future of the Fort St John Pilot Project? What would be the advantages and/or disadvantages of continuing or ending the Fort St John Pilot Project? How is it related to the FRPA?

IV. Comments on BC's forest practices regulatory framework:

D1 Please comment on major differences and causes for them regarding forest planning, reforestation, ecological representational and riparian protection in BC prior to the FPC, under the FPC, and under current FEPA

D2. In your opinion, what would be the major reasoning and forces that brought to adoption of a result-based regulatory approach?

D3 In general, has your or your organization's stand regarding the result-based forest practice regulatory approach changed since the late 1990's? What caused the change or helped to hold the current stand unchanged?

D4. In your opinion, how have the cognitive structure and economic and political environment surrounding forest practices policy changed since the late 1990's?

The following is optional: interviewee may choose to address any of the following questions as preferred

V. Exploring the mechanics of deliberation and decision on forest regulatory requirements with respect to forest planning and ecosystem conservation:

V-1 The Forest Development Plan (FDP, under the FPC regime) was replaced with the Forest Stewardship Plan (FSP) which is the primary operational plan under FRPA that most licensees must prepare and submit to government for approval; FSP specifies the results and/or strategies consistent with default (or approved alternative) objectives and identifies harvesting and road activity through the use of Forest Development Units (FDUs) for meeting the objectives (s. 5 FRPA, s.12, & 12.1 FPPR, s. 14, 16-18 FPPR). Since January 2004, qualified professionals (i.e., foresters, engineers, geoscientists, biologists, and agrologists) may "certify" that the FSP approval tests have been met for a limited number of FSP content elements (s. 1(2), s. 22.1 FPPR)

1. What was your organization's position on replacing the FDP with the professional certified results and/or strategies-based FSP? In your opinion, what rational best explains this arrangement?
2. Who was most influential in this regard? In your opinion, what tactic and reasoning used was very useful?
3. Have you come across any policy experience and/or academic works that could provide added input to this resolution and if so, please provide the source? How has this experience and knowledge been transmitted?
4. How have these changes effected your organization?
5. In your opinion, would the new regulatory arrangement have a positive effect on problems previously encountered?

V-2 The various complex forest operational planning requirements under the FPC had been streamlined in 1998 and again in 2002 (FSAA, No.2, 2002). As a result, site level plans (SLPs) - not for government approval however must indicate how the results and/or strategies established in the FDP or FSP - replace the silviculture prescriptions (SPs). And, from 2004 site plans are allowed to be consolidated into one site level plan covering a larger area (FPPR, S.111, 2004)

1. What was your organization's position on streamlining forest planning and the replacement of SP with SLP when they were first proposed? In your opinion, what was the major force that led to the need for streamlining forest planning?
2. Which organizations or individuals would be considered to have been influential in streamlining forest planning? In your opinion, what tactic was considered to have been most useful?
3. How did these changes affect your organization?
4. In your opinion, would streamlining forest planning by replacing SP with SLP have a positive effect on the problem previously encountered?

V-3 The reforestation requirement has evolved from the FRBC (for silviculture investments) under the former FPC to the inclusion of stocking standards in the FDP (and later the FSP) (FSAA, No.2, 2002; amendment to FRPA in 2004); and, in recent time, a multi-block approach to establishing free growth stands (according to the approved stocking standards) has become acceptable (FPPR, S. 45, 2004)

1. When they were proposed, what was your organization's position on the requirement of stocking standards and the acceptance of a multi-block approach? In your opinion, what logic led to these proposals?
2. Who would be considered to have been most influential in this regard? In your opinion, what tactic was considered to have been most useful?
3. Have you been privy to any prior policy experience or academic studies that could provide additional deliberation to the decision processes? <Ask interviewee to provide the source> How would this experience and knowledge be transmitted and used? In what ways did these sources affect the decision outcomes?
4. How did these proposals/decisions affect your organization?
5. In your opinion, would the requirement for setting stocking standards and the acceptance of a multi-block approach help to solve previous problems?

V-4 The regulatory framework for ecological representation began with the replacement of the former biodiversity/fish/wildlife guidelines (published prior to the FPC regime) with a comprehensive *Biodiversity Guidebook* and the *Managing Identified Wildlife Guidebook*. During the FPC regime, there were *OGMA*, wildlife tree retention and other biodiversity objectives established in the *Land Use Planning Guide* <these are being grandparented into FRPA regime>. The FRPA adds in the establishment of landscape units and the practice requirements for biodiversity conservation, whereby forestry activities must specify wildlife tree retention areas and the percentage of coarse woody debris left within stands to conserve stand level habitat for species needing more localized protection (s.66.67, FPPR); and forestry activities around riparian areas must specify forest seral stage distribution, the temporal and spatial distribution of cutblocks, the level of retention of mature and old growth forest, landscape connectivity (or adjacency/green-up) and forest stand structure and species composition for biodiversity objectives(s. 47-51, 52(2), 53, 64, 65 FPPR). On June 30, 2004, the MSRM established the old growth retention objectives for areas without old growth objectives <through the *Provincial Non-Spatial Old Growth Order*> based on the age of the forest, biogeoclimatic variant and landscape unit.

1. When they were first proposed, what was your organization's position on the establishment of landscape units and the above referenced criteria for ecological conservation? In your opinion, what would be considered to have been the most important factor that ultimately led to the need for establishing landscape units for ecological conservation?

2. Which organizations or individuals were most influential in the decision making and what was their reasoning pertinent to the decision?
3. Have you come across any policy experience and/or academic works that could provide added input to the deliberation and decision processes? And if so, please provide the source. How was this experience and knowledge being transmitted to affect the decision outcomes?
4. How did these decisions affect your organization?
5. Do you think that the establishment of landscape units and the use of the above criteria and indicators for ecological conservation help to solve the problems previously encountered?

V-5 The riparian protection regulatory regime began with the formalization of riparian protection under the former FPC and the publication of Riparian Management Area Guidebook. Current FRPA regime specifies in FPPR the objectives for wildlife and biodiversity objectives and "default" practice requirements for activities around riparian areas; and adds in a requirement for an FSP to specify a result or strategy that addresses retention of trees in a riparian management zone to retain enough trees to maintain stream bank stability (S. 8, S 52(2) of FPPR).

1. What was your organization's position concerning the establishment of "default" practice requirements and the need to specify a result and/or strategy for riparian protection? In your opinion, what rationale best exemplifies these decisions?
2. Who was most influential in this regard? In your opinion, what tactic was considered to have been most useful?
3. Have you been privy to any prior policy experience or academic studies that provided added input in this regard, and if so, please provide the sources? How was this experience and knowledge being transmitted and used to affect the decision?
4. How did these decisions affect your organization?
5. In your opinion, would this regulatory arrangement help to solve the previously encountered problems?

We thank you for your time. Your assistance is very much appreciated!

Appendix C Interview Consent Form

Faculty of Graduate Studies

THE UNIVERSITY OF BRITISH COLUMBIA

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Consent Form

Forest Policy in Northeastern British Columbia from 1990s to early 2000s – Comparing Approaches to Explaining Policy Change

Principal Investigator: Dr George Hoberg, Professor, UBC Faculty of Forestry, (604) 822-3728. **Co-Investigator:** Ms. Sharon Chang, Ph.D. Candidate, Resource Management and Environmental Studies, UBC Institute for Resources, Environment and Sustainability, direct dial: 1-866-493-4934. The above-named research is Ms. Sharon Chang's doctoral thesis research. Part of the final thesis may be presented at conferences or published as journal articles.

About the study:
The purpose of this research is to better identify and understand the rationales and effects of result-based forest regulations while using the case study of the Fort St John Pilot Project. Additionally, we also wish to better comprehend the mechanics of deliberation and decision making concerning the result-based pilot project in northeastern British Columbia. This study employs document analysis and semi-structured interviews to gather data concerning the Fort St John Pilot Project; relevant data regarding broader scale result-based forest regulations, i.e., FRPA, is also collected as supplementary information.

Participating in the study
You are invited to participate in this study as one of approximately sixty possible interviewees who have been involved in the Fort St John Pilot Project. Your contribution to this research is valuable given your experience and knowledge in the boreal region of British Columbia. The interview will last approximately 90 minutes. Interviews will be conducted by telephone or possibly in person. With your approval, our interview will be recorded to later be transcribed and analyzed to identify the key issues. If you prefer not to be recorded, the Co-Investigator (Ms. Sharon Chang) will take detailed notes. A summary of our interview will be emailed to you to verify its accuracy.

1

You may sign and return the signed consent form and fax it to Ms. Chang's direct dial for facsimile 1-866-593-4934, or send an email to the Co-Investigator (Ms. Sharon Chang) at changkmh@interchange.ubc.ca with a brief statement granting your consent to be interviewed. Upon receiving your consent, Ms. Sharon Chang will give you a telephone call to confirm a time and place for the interview.

Confidentiality:
The information you will have provided in this interview will be used only for this study analysis. If you request to remain anonymous, your name and position will be excluded from any written material resulting from this study. Also, quotations will not be identified by source without your written approval. You may review the summary of the interview sent to you after the interview to verify anonymity. Once the study is complete, a summary of the study findings will be emailed to you for feedback.

Contact for information about the study:
If you have any questions with respect to this study, you may contact the Co-Investigator (Ms. Sharon Chang) or the Principal Investigator (Dr George Hoberg) at direct dial 1-866-493-4934, changkmh@interchange.ubc.ca (Ms. Sharon Chang, Ph.D. Candidate, Resource Management and Environmental Studies) or (604) 822-3728, george.hoberg@ubc.ca (Dr George Hoberg, Professor of Forest Policy). If you have any concerns regarding your rights as a research participant, you may wish to contact the Research Subject Information Line in the UBC Office of Research Services at (604) 822-8598.

Consent:
Your signature below confirms your having received this interview questionnaire and your consent to participate in this study.

_____
Signature of Research Participant Date

_____
(Please PRINT name)

Appendix D Certificate of Approval Issues by the UBC Behavioral Research Ethics Board

The University of British Columbia
Office of Research Services and Administration
Behavioural Research Ethics Board

Certificate of Approval

PRINCIPAL INVESTIGATOR	DEPARTMENT	NUMBER
Hoberg, G.G.	Forest Resources Mgt	B05-0979

INSTITUTION(S) WHERE RESEARCH WILL BE CARRIED OUT

Private Office , UBC Campus,

CO-INVESTIGATORS

Chang, Sharon, Resources, Envir & Sustain

SPONSORING AGENCIES

Unfunded Research

TITLE

Forest Policy in Northeastern British Columbia from 1990s to early 2000s - Comparing Approaches to Explaining Policy Change

APPROVAL DATE (yr/mo/day)	TERM (YEARS)	AMENDMENT	AMENDMENT APPROVED
05-11-22	1	July 28, 2006, Recruitment letter / July 31, 2006, Consent form / Questionnaires / Aug. 4, 2006, Subjects	AUG 25 2006

CERTIFICATION

The request for continuing review of an amendment to the above-named project has been reviewed and the procedures were found to be acceptable on ethical grounds for research involving human subjects.

Approved on behalf of the Behavioural Research Ethics Board
by one of the following:
Dr. Peter Suedfeld, Chair,
Dr. Jim Rupert, Associate Chair
Dr. Arminee Kazanjian, Associate Chair

This Certificate of Approval is valid for the above term provided there is no change in the experimental procedures

THE FOREST PRACTICES CODE OF B.C. ACT

PART 10.1 - PILOT PROJECTS TO IMPROVE THE REGULATORY FRAMEWORK FOR FOREST PRACTICES

221.1 Pilot projects

221.1 (1) The Lieutenant Governor in Council may make regulations respecting pilot projects to experiment with ways to improve the regulatory framework for forest practices.

(2) Without limiting subsection (1), the Lieutenant Governor in Council, for the purposes of a pilot project, may order by regulation that provisions pertaining to specified subject matter, or specified provisions, of this Act, the regulations made under this Act, the *Forest Act*, the regulations made under that Act, the *Range Act* or the regulatios made under that Act do not apply

(a) in relation to the small business forest enterprise program, to a district manager or the government, or

(b) to the holder of an agreement under the *Forest Act* or the *Range Act*.

(3) The lieutenant Governor in Council may make a regulation under this section, including a regulation made under a regulation making power referred to in subsection (8), only if satisfied that the regulation is for the purposes of a pilot project and

(a) the district manager, or if the holder of an agreement under the *Forest Act* or the *Randge Act* proposes the pilot project, the holder of the agreement,

(i) has subjected the proposed pilot project to public review and comment, and

(ii) has submitted to the ministers a summary of the comments received and any actions taken or proposed to address issues raised in the comments,

(b) the Lieutenant Governor in Council considers that the proposed pilot project

(i) will provide at least the equivalent protection for forest resources and resource features as that provided by this Act and the regulations made under this Act,

(ii) will be consistent with the preamble to this Act, and

(iii) will provide for adequate management and conservation of forest resources,

(c) the regulations adequately provide for public review and comment respecting forest practices to be carried out under the proposed pilot project,

(d) the regulations adequately provide for monitoring and for evaluation criteria of the proposed pilot project,

(e) the role of the board as set out in section 128 and Part 8 is maintained with respect to the proposed pilot project, and

(f) under the regulations, there is public access to the following, except in circumstances in which the Lieutenant Governor in Council considers that such public access would jeopardize cultural heritage resources:

(i) planning documents and assessments used in the proposed pilot project;

(ii) records that the regulations require to be prepared for the proposed pilot project.

(4) All pilot projects, in a forest region, must not account for more than

(a) 10% of the total of all allowable annual cuts in effect in the forest region on the coming into force of this section, and

(b) 10% of the total of all animal unit months in effect in the forest region on the coming into force of this section.

(5) A pilot project may be established only in an area that is subject to a higher level plan, or an area subject to a regulation made under subsection (7) (f) for balancing competing values and interests.

(6) For a pilot project, the ministers may establish a committee, to be known as a local public advisory committee, to do the following in accordance with the ministers' directions:

(a) to review comments made by the public under subsection (3) (a) (i);

(b) to review the summary of the comments and actions taken or proposed under subsection (3) (a) (ii);

(c) to report to the ministers as to the public acceptability of the proposed pilot project.

(7) Without limiting subsection (1), the Lieutenant Governor in Council, for the purposes of a pilot project, may make regulations repsecting the following:

(a) conditions, including providing that all or part of a regulation made under subsection (2) is subject to a condition and requiring that a person to whom the regulation applies comply with the condition;

(b) the suspension or cancellation of a pilot project;

(c) the regulation or prohibition of forest practices;

(d) the protection of forest resources and of resource features;

(e) compliance and enforcement;

(f) the balancing of competing values and interests for the purposes of subsection (5);

(g) planning;

(h) monitoring and evaluation of pilot projects;

(i) public review and comment related to pilot projects;

(j) public access to

(i) planning documents and assessments used in the pilot project, and

(ii) records that the regulations require to be prepared for the pilot project.

(8) Without limiting subsection (1), the Lieutenant Governor in Council may exercise all the regulation making powers in this Act, the *Forest Act* and the *Range Act* for the purposes of a pilot project, and may make regulations that are contrary to a provision of those Acts if that provision is inapplicable because of a regulation made under subsection (2).

(9) A regulation under subsection (7) (f) may be made only with the consent of the ministers.

(10) A regulation under this Part with respect to a pilot project does not apply to a holder of an agreement under the *Forest Act* or the *Range Act* until the holder has consented to take part in the pilot project.

(11) If a regulation under subsection (2) provides that, for the purposes of a pilot project, a provision of an Act does not apply to a district manager or to the holder of an agreement under the *Forest Act* or the *Range Act*, the provision is also inapplicable, for the purposes of the pilot project, to their

(a) employees or agents, or

(b) contractors, as defined in section 152 of the *Forest Act*.

221.2 Annual reports

221.2 In accordance with the regulations

(a) the holder of an agreement under the *Forest Act* or the *Range Act* who is the subject of a pilot project must report annually to the ministers on the pilot project,

(b) the district manager must report annually to the ministers on any pilot project in the district manager's district that is not referred to in paragraph (a), and

(c) the ministers must make the reports publicly available.

221.3 Penalty revenue to be paid in accordance with section 117.2

221.3 All revenue payable from penalties imposed under this Part must be paid in accordance with section 117.2

Appendix F Fort St. John Pilot Project Regulation

http://www.for.gov.bc.ca/tasb/LEGSREGS/ARCHIVE/FPC/FPCAREGS/fsjppr/FSJPPR.htm

Appendix G Examples of Coding the Interview Transcripts

Record ID	General coding	Specific coding	Examples of interview transcriptions
12	Academic work or policy experience	Other pilots	"Prior to the Code pilot, some pilots such as McBride and other IFPA projects that set the stage of the FSJ Code pilot"
96	Academic work or policy experience	Alberta - tenure, certification - area-based	"The Alberta FMA system – an area based tenure. A lot of that tied to certification function. In Alberta everything is area-based. FSC and CSA are all area-based. All the participants need to work together to create a defined forest management area."
263	Academic work or policy experience	NDU	"Natural Disturbance Units for the (Old) Prince George Forest Region: Guidance for Sustainable Forest Management. We had better information (specific to the forest ecosystem), and those were implemented in the FSJ Code pilot."
891	Academic work or policy experience	TFL48 - FMP, CSA, PAG	"I would say because Warren and Don were so involved in the Forest Management Plan for TFL 48 and CSA thing they went through the whole CSA certification and PAG, so they had a lot of experience in this area, they knew what the structure their plan had to be, they knew the key components, players and so on, so they were way ahead to everybody else in that regard."
961	Academic work or policy experience	Benefit of collaboration in the same forest landbase	"Under FL arrangement, there was no coordination. When you start introducing deciduous, you have a set up where the tree side by side in the same landscape but people are not talking to each other. It would be a chaos"
806	Academic work or policy experience	timber constraint (an interest)	"There wasn't academic exercise at all. It was an operational reality – the industry did not want to deal with the time constraint, so they built in administrative reduction. It was an operational reality not incorporating academic studies."

Record ID	General coding	Specific coding	Examples of interview transcriptions
1339	Academic work or policy experience	IFPAs	"I think the experience in the Babine EFMPP and Vanderhoof IFPA and the Morice Lake IFPA definitely was used in shaping where Canfor thought it wanted to go with the Fort St. John pilot project."
1179	Academic work or policy experience	UofA, Aspen research association	"I find even in BC, we tend to look over the border and get stuff from UofA that's out there, there's an aspen research association by Simon Landhausser at the Center for Enhanced Forest Management."
426	Academic work or policy experience	Riverside's multi-block approach	"They became familiar with what Riverside did for silviculture and free-growing, the multi-block approach."
436	Academic work or policy experience	unmixing the mixed	"There was a discussion on models…[some experts] suggested to the Fort St. John pilot that rather than managing it as intimate mixture, they can divide the cutblock into various units"
437	Academic work or policy experience	interests in aspen and spruce	"Until the OSB started they weren't logging mixedwood stands, so essentially we were looking at older stands and trying to assess the impact of aspen on the spruce in mixed stands, and we found there was lots of nice aspen, and there was lots of nice spruce"
358	Affect your organization	Resistance of status quo	"There is resistance to some of the things like multi-block and stratification. Publicly, it's a provincial initiative, but individually there was concern. There are gaps in this whole thing."
514	Affect your organization	got more benefits quicker (interest)	"By jointly being with [pilot project participants], they were able to sort of carry us along, it got us more benefits quicker than we would have had before by ourselves."
820	Affect your organization	took the political pressure off the government (interest)	"The pilot projects were valuable to government; they took the pressure off the government and released some of the political pressure. The pilot policy did create a lunching pad for company to try something different, and the learning we got from the pilot experience was very important for the development of

Record ID	General coding	Specific coding	Examples of interview transcriptions
			FRPA."
50	Allies	PAG's relationship w/ WG	"People on the (PAG) table, we established the relationship with the working group"
79	Become involved	concern about the Code	“It was the concern about the application of FPC. The FPC was much regimented, very legal base, more of a cookie-cutter where you get same application of values and issues, and of course different areas have different ecological and industrial issues."
211	Become involved	principle (idea)	"Well, because of my concern with -- I would like there to be a world there for my children, my grandchildren, my great-grandchildren down the line, which is still a health world with barrenness other than just us humans.”
450	Become involved	optimal plan for mixedwood (interest)	"Since the trees are all mixed up on the land base, to get optimal plan or manage that piece of ground as a piece of land, we thought it would be beneficial to work together."
390	Certification	certification - interests	"One of the very influential parts of all this, and I don’t’ think it’s given enough credit and maybe often overlooked in the discussion, is the importance of the existence of the certification program and the influence they have on corporate behavior."
833	Certification	certification - CSA SFMP	"It really made sense for the FSJ code pilot to apply for CSA SFM certification, because we had all the actors on that land base together in the process to develop a common Sustainable Forest Management Plan to mange the whole area…."
782	Change associated with forest policy	streamlined	"Operational procedures have definitely been changed. It becomes very much streamlined in a sense that there’s not as much call from back and forth with plans."

Record ID	General coding	Specific coding	Examples of interview transcriptions
939	Change associated with forest policy	increasing understanding	"I think there is an increasing understanding of the complexity of the resource management. So I think that's been a significant change."
612	Channels for external communication	personal contacts (power)	"Slocan's external communication was mostly done through executive and corporate leaders. In addition, Julius Juhaz (then VP of Slocan) was formerly a high ranking government official in Victoria before he was hired by Slocan"

Appendix H Examples of Coding the Collected Documents

Record ID	Coding	Document	Source
D1	Business interests/structural power	Canadian Press, September 28, 1996, Forestry profits slide hits the BC treasury, *The Toronto Star*, SATURDAY SECOND EDITION	LexisNexis® Academic: Document
D2	Environmental groups' interest	Robert Matas, October 29, 1996, BC unveils 23 parks, but discontent remains Some environmental groups see sellout in provincial government's initiative to protect wilderness areas, *The Globe and Mail* (Canada)	LexisNexis® Academic: Document
D3	Business structural power	*British Columbia Report*, Nov 11, 1996, Killing the golden goose: barriers to wealth creation blamed for BC's blues	ProQuest: Document View
D4	Industry lobbying/FSSC	Patricia Lush, November 20, 1996, Inside BC: 'BC factor' hits forest industry, *The Globe and Mail* (Canada)	LexisNexis® Academic: Document
D5	External factor	Giles Gherson, November 22, 1996, [With new lower-cost wood producers around the ….] *Southam Newspapers, CanWest News*	ProQuest: Document View
D6	Business campaign	Canadian Press; CP, November 25, 1996, BC forest policies threaten jobs: report, Section: REPORT ON BUSINESS, *The Globe and Mail* (Canada)	LexisNexis® Academic: Document
D6	Business campaign	Canadian Press, November 25, 1996, BC forestry study sees	LexisNexis® Academic: Document

Record ID	Coding	Document	Source
		4,000 job losses, *The Toronto Star*, Monday, METRO EDITION	
D7	Government defending policies	Patricia Lush, November 26, 1996, BC forestry study called preliminary Minister predicts smaller job cuts, *The Globe and Mail*, Section: REPORT ON BUSINESS; pg B9, Dateline: Vancouver	LexisNexis® Academic: Document
D9	Business campaign about the cost of the code	BC forestry: What's wrong in the woods, December 23, 1996, *The Globe and Mail* (Canada), Section EDITORIAL	LexisNexis® Academic: Document
D10	Jobs and Timber Accord	Craig McInnes, June 20, 1997, BC to make 40,000 jobs out of timber, Clark says Companies would get subsidies, province would help plant trees, *The Globe and Mail* (Canada),	LexisNexis® Academic: Document
D11	Government's shift in attitude/logging cost/cost study	Patricia Lush British Columbia Bureau, January 21, 1997, Forest companies to open books to BC cost study Industry says some firms may have to close, Section: REPROT ON BUSINESS, *The Globe and Mail* (Canada)	LexisNexis® Academic: Document

Appendix I Fundamental Reasons, Concepts, Opinions, Concerns and Effects Coded based on Interview Transcriptions

General coding	Specific coding
Pre-code world	Discrepancies, variations, reforestation after 1987
From pre-Code to Code	Forest conflicts likely caused by poor forest practices; a compliance mentality; power of public opinion; many plans; rigid regulation
Code world	SP very stand level, public involved at the operational level; Code: regimented, cookie-cutter; Code: prescriptive, not flexible, but brought riparian protection and ecological representation to the front; the rigor of the Code; Code: heavy-handed; Code: regime with guidelines and rules; Code: not fractured up so bad; Economic crisis & Structural power of business
Strength of the Code	Good forest management, riparian and habitat conservation; same rules for everyone; easier to enforce, black and white; planning and non-timber areas; responsibilities and accountability; standard of practice; raised the awareness of environmental practices/ so expensive; detail/specific plan and target; interests- market place suffer less; good management intentions
Weakness of the Code	not enough flexibility; too prescriptive; many details; lots of paper work, plans may be rejected with minor errors/issues; one-size fits-all; not much room for innovation; overly burdened; too many plans required too many approvals; bureaucratic, rule-based; delivered wood cost (DWC); lack of incentives for companies to protect environment; not working in the boreal
Cognitive change since late 1990s	From focusing on the economic side back to the economic side; cost and bureaucratic procedures
Change associated with forest policy	Compromise between government and industry; streamlined; increasing understanding
Learning from the Code	The code was an extremely positive influence on forestry, though it added cost; opportunity and responsibility are greatly

General coding	Specific coding
	increased.
From Code to the Code pilot	Power of the economic group; shortcomings of the Code; the Blueprint for Competitiveness – mapping out a way out of the problem of the Code; removing all the constraints, more dependent on foresters, respond to market opportunity; saving time; change in silviculture practices; too much paper work, costing too much, demanding too much time; from individual planning to shared planning; under the Code pilot silviculture standards becoming tied to future yield with volume projection
Rationale of Part 10.1	Cost of the Code; innovation; the code was too restrictive, industry had some ideas they wanted to test out; a communicative response of the government to improve the regulatory framework; simplify/flexibility; the code was very prescriptive and one size fits all, professional reliance; all participants plan together; the code had not being subject to practicality test; BCEN representatives being the prominent voices; trial and adaptive management; less administration but with the same or higher level of environmental standards; Chief Forester's preference to gain some better experience; COFI's advocacy; Cariboo
Origin of the FSJPP	Participants working together; in a geographical area where it might be easy to do; power sources; the code being static, not driving continuous improvement; certification; reducing costs while accomplishing all the goals of forest management; power of market; interests in mixedwoods, Slocan started talking; cascade of costs; transaction cost
Who initiated the FSJPP	Industry initiated; pressure from the European markets
Become involved	Concern about the Code; concern about the cost; Canfor's forest principles; personal contacts; expertise; seeking optimal plan for mixedwood; mixedwood expertise

General coding	Specific coding
Rationale of the FSJPP	Chairman of Canfor pushed; putting more responsibility on the companies and taking some off government; self-regulation; access to fibre; delivered wood cost; sending the right log to the right mills; interests in CSA for FSJ; defined forest area; from code to the results-based code; coordination on the entire landbase; CSA; the larger the landscape, the more balance between timber harvesting and ecosystem management; SLPs
The reasoning	Efficiency; less expensive; cost; power of experts; flexibility; power of industry; government budget; less prescriptive; science and innovation could be used to improve outcomes on landscape
Why results-based?	Cheaper; the *Code* being lacking of flexibility, too much paper work, causing inefficiency; cost; the *Code* being limiting frost professionals' practice; using objectives to mange being more cost efficient; the *Code* being all process, expensive, lots of red tape and paper work
Code pilot world	Flexible; the opportunity to implement new information; public consultation; fixing the *Code*; the father of FRPA; fracturing the whole system up; only the FSJPP came through the legislation process; combining all the licensees in the TSA; Natural Disturbance Units (NDUs) for old forest and patch size distribution
Initial position on the FSJPP	Threat to the intent of the *Code* legislation; government support; public support; some opposed to the whole business but thought there was good public input; put more responsibility back to the government
Academic work or policy experience	Other pilots; presentations; Alberta – tenure, certification, area-based; natural disturbance units (NDUs); TFL48 – FMP, CSA, PAG; Benefit of collaboration on the same forest landbase; fire return and patch size distribution; Arrow IFPA-SFM; Babine EFMPP, Vanderhoof, Moris Lake IFPA; Aspen research association; Riverside; unmixing the mixed
Channels for external communication	Personal contacts
Certification	Certification; CSA SFMP

General coding	Specific coding
IFPA-EFMPP	Better productivity; highly regulated; strategic (IFPA/EFMPP) vs. legal practices (FSJPP); focusing on landbase productivity/forest renewal; not fulfilling the industry's broader interests; licensee-led with government guideline
PAG process	Consensus based conservation; educational; collegial; some felt empowered; receptive; others saw abbreviated numbers and felt powerless; positive response behind the FSJPP; CSA process for the PAG process
First Nations	JMAC, MOA, Signed MOA but didn't want to be part of the PAG, treaty negotiation
Allies	PAG's relationship with the Working Group; some felt powerless
Opponents	Resistance from some government officials
PAG compared with other decision process	More restrictive on what they can affect than LRMP process; ground rules less clearly defined, fewer players – easier to move forward; cost-efficient, competent people, structure that people can comment; sense of belonging with shared interests; some felt too many people to deal with
Oil and Gas	The power of big industry; forestry principles and motivation to coordinate with other resource users; less damage by communication/working together
Coordination	Obstacles for working together: competitions for the landbase
Landscape	Should put more responsibility back to the government; managing at landscape level has to be done at a scale beyond the individual company scale; higher level plans (HLPs); natural disturbance units (NDUs); achieving forest stand type at the landscape level; a ledger system
Multi-block	Concerns about multi-block; no model to demonstrate
Reforestation	Concern over slow-growing tress; AAC-spruce interest; concern over losing forests
Mixedwood	Accepting more aspen; OSB; Slocan-LP joint venture; Resistance of status quo and public concern; having more than one interest helped do trails with the system; using provincial deciduous and coniferous stocking standard; Alberta's

General coding	Specific coding
	experience as to the balance of the deciduous and coniferous stands; some mixedwood experts saw no discussion on innovation silviculture treatments; plantation mentality, insisting on free-to-grow standards; problem with a free-to-grow standard; change in forest policy concerning preferred and acceptable species; SFMP and OSB mill; mixedwood researches at the region; a bias based on the type of the licence; not going way out the mixedwood end of things; adjustment towards mixedwood; not actually creating seral stages; Spruce preference; different timber rights sharing the same landbase
Replacing FDP with SFMP	Public consultation; easier, closer to what they are already doing; the FDP was too green; ideas for interests; field professionals gained more responsibility and accountability
Replace SP with SLP	field professionals gained more responsibility and accountability; too much for a long time, support of the local communities; less information
Role of district office	Support of government
Role of tenure	Interested in area-based tenure
Role of boreal/mixedwood	Interested in spruce
Most influential actors & impact areas	The government managers and researchers; industry representatives and consultants; consultants experienced with the *Code*; industry managers; leaders of Slocan and LP, Mayor, Canfor managers; industry and BCTS representatives; silvicultural specialists from the government and the industry
Strength of influence	MK interests/good; good; weak; ignored; research group; power of RED/ADM - district and regional managers – and local government; power of politicians and money; power of big industry; industry taking the lead
Obstacle	Merger; BCTS used to be the weaker player; with government's support, no obstacle resulting from administrative procedure; bureaucratic discomfort with departing from the norm; no direct contact with First Nations; concerns of environmental groups
Short-term effect of industries	Loss of species
Actors' positions and rationales/What	Requiring landscape level strategy can be good or bad;

General coding	Specific coding
could best exemplify the FSJPP?	requiring landscape level strategies and performance standards are critical; cheaper delivered wood costs (DWC); cumulative effects; landscape level plan vs. stand level plan; landscape pattern was the key thing pushed in the *Code* era; quality and volume of trees, while addressing non-timber purposes; silviculture at the landscape level is a big thing; flow the woods (including mixedwood) to maximize the amount of utilization by mills; by logging, the forest industry takes over, mimicking nature and utilizing the timer; the sprit is the flexibility to propose alternative strategies; old growth retention – had been unsuccessfully implemented
Source to obtain skill and info	Provincial and national organizations, staff members with special knowledge and skills; communication, past experience with other processes; internal expertise, outside consultants
Helped address the problem encountered?	Unknown effects; understanding where [the industries] were going; interests in mixedwood; brining people together in a volume-based tenure area; the amount of regulations; like the approach to have different companies talking together, but don't' like the overall philosophy and direction; helped in resolving some operational concerns/needs, reduced wood costs, better cooperation/co-ordination; peace in the community; let the Silviculture Prescription (SP)go
Affect your organization	Resistance of status quo; got more benefits quicker; took the political pressure off the government; extra work
Outcomes of the FSJPP	Unknown effects; control the variables in calculating the delivered wood cost (DWC); new way of survey and logging at what is satisfactory restocked
Future of the FSJPP	Need to evaluate the outcome and comment on that; PAG becoming a point of engagement for other stakeholders; PAG becoming a point of influencing forest policy for other stakeholder; government's interests; licensees' interests; reduced conflict between forestry and O&G industry; a SFMP for entire TSA, better coordination; a disadvantage for government – reduced power compared with the *Code* era; pilot regulation creates headache to the government because of extra work; built knowledge capital; wished for more

General coding	Specific coding
	involvement of First Nations; 6 years of wood ahead; public creditability & social license; assured timber supply; a fair amount of maintenance and efforts
Learned from the FSJPP	Unknown effect; coordinated planning, relationship between strategic plans and operational plans; having a central information system for analysis of cumulative impacts; field trip for forestry education; good ways of approaching the public; forest management seems to be going in the right direction; regionalized guidance, adaptive management; a joined and coordinated operation; spraying and under brushing are not agreeable; the value of allowing innovation, experiment, providing a transition point between the code and the result-based world, where little research projects exist; working together; the scope of resource management issues; complexity of resource use relationship; learning various issues through presentation by others and general discussions; an efficient process; away from heavy planning and into a more results-based emphasis; exchange of technical information with industry foresters/managers
FRPA world	Further flexible; based on common values and knowledge base