The Shaping and Reshaping of British Columbia Forest Policy in the Global Era: A Review of Governmental and Non-governmental Strategic Initiatives[*]

By

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I. Overview/Introduction

The current unprecedented and accelerating pace of economic globalization (Garrett 2000) and associated internationalization of issues that used to be considered purely domestic affairs (Florini 2000; Stiglitz 2002; Braithwaite and Drahos 2000) have presented the British Columbia (BC) forest policy community with a much more confusing, uncertain, and complicated world (Bernstein and Cashore 2000) (Cashore, Vertinsky, and Raizada 2001). Partly as a result, the challenges facing professional foresters, government officials, the forest industry, environmental groups and rural communities have dramatically increased. The ability of BC to compete in world markets with forest products derived from faster growing climates in the global South, much of which is harvested illegally or unsustainably, is a critical economic concern; the increasing vulnerability of forest dependent communities amidst such trends is socially worrisome; and scientific data collected on biodiversity, species decline, deforestation, and global climate change reveal complex, yet fragile relationships among industrial activity generally, forest operations specifically, and forest ecosystems' structure and function.

Given the pace and complexity of these challenges, are those governmental, industry, professional and non-governmental actors who have a role in shaping British Columbia forestry policy able to act in ways that are not simply reacting to them? Can policies be made in ways that are unpredictable "outside the box" approaches, such as innovative efforts to create "win win" solutions? Can persistent challenges be turned into opportunities? That is, to what extent are, or could, choices about BC forest policy be strategic? The purpose of this paper is to assess these questions through a review of some of the most important issues facing the BC forest policy community. Our aim is not to derive definitive conclusions, but rather to identify what appear to be overall trends and approaches. We are interested in identifying fruitful pathways not only for scholarly research, but also for professional foresters, government, industry and environmental group officials and other policy actors who care about British Columbia's forests and shaping its future in the world economy.

To undertake this effort we proceed in the following analytical steps. First, we review the environmental, social and economic challenges facing British Columbian forestry. Second, we take care to develop an analytical classification framework that allows us to describe what we do know about a range of actors' responses to these global pressures, or what future research is needed to uncover. This section makes three important classification distinctions regarding how choices were made: the apparent degree of systematic analysis that organizations undertake when deliberating over a policy option (i.e. the degree of rationality); the nature of responses in terms of what was being demanded (i.e. whether the organization was "fending off", "compromising", "acquiescing" or seeking non zero sum "win win" solutions); and the type of internally derived notions of organizational self interest, which, as we show, can range from rather traditional and narrow conceptions, to ones that recognize the interrelationships of the broader community in which organizations operate. Third, we apply the framework, through a qualitative and comparative review, to three broad policy arenas: domestic (focusing on forest practices and stumpage/timber pricing policy); international (focusing on illegal logging and climate change); and private or market based efforts that have emerged in the last decade designed to sidestep traditional public policy making processes (focusing on the case of forest certification). Fourth, we reflect on the types of patterns that emerge from the application of our framework and theorize about what they mean for the ability, or possibility, or effectiveness, of BC forestry professionals, governmental, industry, and environmental groups officials, and other members of the BC forest policy community to act strategically in the future. We highlight that the answer to this question may, in part, be determined by the specific environmental, social, or economic challenges under consideration.

II. The Challenges

There is now widespread acceptance among forest industry officials, professional foresters, governmental agencies, and environmental groups that the ecological, social, and economic functions of world's forests are under stress. Scientific data collected on biodiversity, species decline, deforestation, and global climate change; social research on forestry and community development; and research on increasing globalization and technological innovations, have revealed a complex, yet fragile relationship between forest use and natural functioning forest ecosystems. Although a complete analysis is beyond the scope of this review, we identify key forestry problems and concerns in the British Columbian and international contexts.

Environmental Issues

Despite an array of governmental, intergovernmental, and non-governmental efforts to address global environmental deterioration, the gravity of most problems, and the hastening of it is, increasing. Although biodiversity conservation is now an explicit policy goal, we continue to lose species at unprecedented rates, accelerating what some refer to as the sixth major mass extinction in the earth's history (Leakey and Lewin 1995; Pimm and Brooks 2000). Likewise, regardless of several decades of widespread concern about tropical deforestation, nearly 100 million hectares of forest were lost in Africa and Latin America between 1990-2000 (UNEP 2002). In British Columbia, despite its relatively low population density and abundance of forested land, well over a thousand plant and animal species have been identified as endangered, threatened or of special concern (BC Conservation Data Centre 2004 in Wood and Flahr 2004). Conservation biologists studying this problem over a decade ago noted that then official goals of protecting 12% of the province's forests would fail to address the gravity of the situation, which required not only preservation, but rehabilitation of degraded lands (Sinclair et al. 1995).

Arguably the most thorny, complex, and devastating issue to face forestry comes not from the forest sector per se, but from the dramatic process of climate change that the world is undergoing owing to greenhouse gas emissions. This human-caused problem, directly attributed to greenhouse gas emissions as a result of industrialization, may become the single biggest threat to worldwide biodiversity. Based on mid-range estimates, scientists have recently asserted that 15-37% of flora and fauna species worldwide will become extinct by 2050 as a result of climate change impacts (Thomas et al. 2004). Canada is a huge contributor to this problem, ranking as one of the world's worst per capita emitters of C02 (Union of Concerned Scientists 2005). Moreover, greenhouse gas emissions have been steadily rising in the oil and gas sectors. In addition, electricity and transportation sector emissions are up 41% and 31% respectively. (CFS 2005) from 1990 levels.

That climate change is happening, that it is accelerating(Goddard Institute for Space Studies 2006), and that its impacts are, and will be, devastating, is now undisputed among mainstream scientists (Watson, Bank, and Team 2001). What remains uncertain, and is the subject of ongoing extensive research, is the precise forecasting of this devastation. Recognition of this has led the scientific community to warn against any increase in global mean temperature above two degrees Fahrenheit with some saying the figure ought to be closer one degree.

Canada's northern location makes it particularly vulnerable to the effects of climate change. This is because polar climates incur strong positive feedbacks from greenhouse gas emissions such as methane (a greenhouse gas with great warming potential) which is released as soils warm, as well as from land and ocean surfaces absorbing heat when they are no longer covered by ice and snow (Spittlehouse and Stewart 2003). In the near future, Canadian winters will be characterized by increased precipitation, and summer months will be marked by decreased levels of precipitation (Spittlehouse and Stewart 2003). While scientific uncertainty exists about the current impacts of climate change, it appears that it has caused, or

exacerbated, British Columbia salmon migration and spawning owing to the warming of waters; droughts throughout the Prairie provinces; sea level rise in the eastern provinces impacting coastal communities; and the eight percent reduction of sea ice coverage in the Arctic over the past thirty years, as well as thawing of permafrost and increased winter flow of rivers (DSF 2005) Already, climate change in British Columbia has caused the interior to warm by more than 1.1 to 1.7 °C (MoE 2002) over the past century, which is two times the global average. In southern B.C., precipitation levels have risen 2 to 4% per decade over the last century, and are expected to rise another 10 to 20% over the next century (CFS 2005).

The effects of climate change on Canadian and BC forests will be profound. Already a number of species impacts are becoming visible, including modification of migration patterns, length of growing seasons, species distributions, population sizes, and invasive species outbreak (CBD 2003). Over the next century, in part due to climate change, forest fire seasons are projected to grow rapidly and result in an increase of 38% of burn area in North American forests. Not only does this affect the environmental condition of the forest, but, revealing the difficulty in distinguishing some environmental values from economic and social ones, it has been estimated that these fires will cause the loss of $1.4 to $2.1 billion a year for the forest products industry over the *next one hundred years* (Malcolm 2005; NRC 2005). And although the exact contribution of C02 emissions is disputed, the most visible forest threat posed by climate change is its role in greatly exacerbating the spread of the mountain pine beetle. Roughly 8.5 million hectares of the BC interior was infected with the mountain pine beetle in 2005 (MoF 2005) in future, the beetle is projected to kill 80% of merchantable and susceptible lodgepole pine across BC (McGarrity and Hoberg 2005).

Economic and Social

The enormous challenges facing British Columbia's forest environment exist along side similarly troubling economic and social concerns. The BC forest economy faces a number of challenges related to market globalization especially owing to rapidly expanding and changing economics in lesser developed countries, including China and Russia, and the ongoing uncertainty of the US-Canada softwood lumber dispute. Indeed, a CIBC World Markets analysis (CIBC World Markets 2005) has argued that, in general, BC forestry will face increasing consolidation, decreasing forest commodity prices, and increasing wood supply (from competitors) (CIBC World Markets 2005: 1). Moreover, it argues that the emergence of China as an economic power, owing both to the increasing size of its economy in general, and its impact on forest products sector specifically, is arguably the "biggest economic shock to the global forest products industry". Whether this shock is positive or negative depends, in part, on the product in question, and the need to consider both increasing supply and increasing customer (Nilssona and Bull 2005). When such calculations are made, the CIBC report reasons that China will be neither a competitor nor customer on paper; that it will be a customer for pulp; but a competitor for solidwood products – in large part because the extremely low labour costs in China visa-a-vis its western competitors. Low labour costs allow China, Howe et al have found (All over the Map: A Comparison of Provincial Climate Change Plans 2005), to produce finished forest products at much lower costs than the US and Canada[1]. Indeed, the global South in general has much lower input costs. The CIBC World Markets report notes that "Prices in Chile, Brazil and Australia are one-half to one-third of that prevailing in many of the main producing regions in the Northern Hemisphere. (CIBC World Markets 2005:12)

The role of timber supply from other countries is also important to the BC forest economy. For instance, the CIBC report notes that Russia currently has a 50% gap between its current harvesting levels, and what it could produce with improved infrastructure (ibid 14). Realization of this on the part of global capital markets has led, Howe et al reveal (All over the Map: A Comparison of Provincial Climate Change Plans 2005) to "a massive influx of new capital to the wood products industry of that country."

Take together, these trends will have an increasing impact on the BC forest economy, influencing timber prices, forest products manufacturing, as well as potentially creating new markets for some products but losing markets for others. What is clear is that most of BC's competitors operate in faster growing southern climates. Second, and related, the conversion of many of these regions' natural forests to faster growing plantations poses a challenge to BC's forest sector that is reliant on relatively low intensity natural forest management. It is estimated that in less than two decades the majority of the world's industrial wood fiber will be sourced from plantations. Currently about 90% of the new plantations being established are located in the Southern Hemisphere.

BC's competitiveness challenges will become even more pronounced as BC timber harvest moves increasingly towards secondary growth harvests and as BC industries incur relatively higher labor costs alongside relatively higher environmental regulations.

Over the next years, furthermore, BC will experience a timber "fall down" with its traditional cut, made more pronounced by accelerated logging in mountain pine beetle infested areas. This fall down will have its most profound affect on rural communities in beetle affected areas. For example, in 2004 the Ministry of Forests authorized a 78% increase in AAC in four affected TSA's (McGarrity and Hoberg 2005; MoF 2005). This level of harvest cannot be sustained and will lead to a dramatic drop in economic activity in the region.

Rural poverty is also a major area of concern in BC. Poverty is a particularly glaring problem among the province's First Nations population, with 63.8% having made less than $20,000 in 2001 in comparison with 45.3% of the non-aboriginal population (MMS 2001). Likewise, the child poverty rate among aboriginals is nearly twice that of non-aboriginals (First Call 2005). This economic hardship is rooted in a long history of aboriginal rights violations which have led, in turn, to long-standing disputes over land and resource rights. As a result, unsettled land claims now cover the majority of BC forest lands.

While the focus of this study is on environmental protection policies, it is clear that any solutions to current environmental challenges cannot ignore their economic and social implications. Rather this paper aims to shed light on just what sort of internal decision-making frameworks and what kinds of strategies are most likely to achieve policy progress within the complex and multi-faceted arena of British Columbian forestry.

III. Towards an Analytical Classification Framework

Given the confusing and contentious atmosphere in which British Columbia professional foresters, governmental, forest companies, and environmental group officials, are often required to respond to and develop policy positions, how might we begin to *classify* their choices? We draw on two literatures with which to conduct our analysis: the first consists of longstanding scholarly efforts designed to describe the degree of rationality (Simon 1957, 1957) and time frame (Bendor 1995; Lindblom 1959) in which well intentioned officials *evaluate* their policy options. We refer to this area of study as the characterization of the internal decision-making approaches of policy actors. The second consists of more recent innovations within organizational sociology that have offered various ways of classifying the nature of the *relationship/exchange* between organizations when one seeks to *change* the policy choices of the other (Oliver 1991; Rowley 1997; DiMaggio and Powell 1991). We refer to this latter area of study as the characterization of the response of policy actors to external pressures. Following these sections, we then identify other factors regarding active efforts to change evaluations that are germane to any longitudinal analysis that wants to identify the most critical research questions about policy development over time.

Characterizing the internal decision-making approaches of policy actors

Longstanding debates about the types of evaluation efforts governmental officials undertake, or ought to, when offering policy advice to their political masters has yielded rich analytic distinctions centering around three dimensions: how "rational" choices over a particular policy are, or ought to be including the time frame in which the evaluation of the policy impacts are considered (i.e. how far into the future?); and the size of the policy choices away from the status quo. Herbert Simon (Simon 1957) is arguably the best known champion of a "rational" approach characterized by application of the scientific method to guiding policy making choices. A key assumption of this approach is that policy makers, or their advisors, ought to identify the various goals that will influence a policy choice (such as environmental protection or economic development), operationalize them into measurable objectives (such as maintaining species populations or employment levels), and then predict the impacts of various policy choices up for consideration (Weimer and Vining 1999).[2] For Simon, policy alternatives should be as sweeping as possible in order to address a policy problem, and the impacts should also be assessed as far into the future as possible, so that the best informed, systematic, and hence most rational choice can be made. However, Lindblom (Lindblom 1959) criticized these efforts, arguing that policy makers tend to undertake small "incremental" changes because choices are made within the limited time spans of short term electoral cycles, and because they lack complete information about the range of impacts (especially in the long run) of different policy options. Instead, Lindblom championed what he called "the science of muddling through" which called for only small steps from the status quo. Since big choices could lead to big mistakes, Lindblom argued that an incremental approach better fit with the realities bureaucrats actually face.

Although starting from different places, the net result of Lindblom and Simon's exchanges highlights the utility of being as rational and well-informed as possible within the confines of an uncertain and constantly changing world. What has emerged from these insights is agreement within the literature that policy choices follow a continuum, from "blundering" or "seat of the pants/bumbling" approaches, that have little systematic analysis to them, being located on one end of an evaluation classification pendulum, to perfectly rational choices with complete information about short and long term impacts of a range of policy options, on the other end of the continuum (Howlett and Ramesh 2003).[3] While it is doubtful the latter could ever be attained, these classifications offered by this literature permit us to assess where various choices made by forestry actors in British Columbia might be located along this continuum.

For the purposes of this paper we draw on this literature to identify a continuum of policy evaluations that governmental, forest company, environmental group and professor forester officials might undertake in responding to, or championing, particular policy goals (Figure One). On the left hand side we identify **"seat of the pants"** or **"bumbling through"** decision making processes that have little systematic thought or analysis given to them. Such decisions would be made with limited effort to understand the range of choices that might be available to them, and only limited attention would be placed in analyzing the range of future direct and indirect impacts that a particular choice might have. We also not that when policy makers' choices fall under such classifications, that they will be **difficult to predict**, since it will be impossible to know, on what basis, these choices might be made. Moving along the continuum, we note that "**strategic short term" decision making processes** capture those policy evaluations that are taken after consideration of various policy options and that are designed to ameliorate a particular problem. While "strategic short term" choices may involve a considerable level of thoughtful planning, they are based on relatively short term time horizons – such as the next electoral cycle – while longer term, potentially perverse impacts, are rarely reflected on or tended to. Given that such choices are made with available knowledge and immediate or near term impacts, choices made by such types of evaluations **are much easier to predict**, since we know that they apply a rational scientific approach but consider limited variables and time horizons. At the right end of the continuum we identify "**strategic long term"** evaluations of the sort championed by Simon that are undertaken based on a broad consideration of short

and long term impacts, and greater reflection about what unforeseen factors, including "wild cards" might occur in the future to shape and influence existing policy choices. Like the bumbling through approach, strategic long term choices are much **harder to predict** because although they follow a "rational" and systematic approach, the number of policy options they consider and explore, and the increasing uncertainty that comes with analyzing longer term impacts, makes it virtually impossible to predict just what kind of policy they might pursue (although it is possible to identify, after the fact, policy choices as resulting from such processes).

Characterizing the response of policy actors to external pressures[4]

A second related literature largely focused on choices made by firms in response to increasing demands from society to address a range of social and environmental problems for which the firms are asserted to have caused, and/or to be responsible for ameliorating (Greening and Gray 1994; Gunningham, Grabosky, and Sinclair 1998; Gunningham, Kagan, and Thornton 2003; Post and Altman 1992; Vertinsky and Zietsma 1998; Zietsma and Vertinsky 1999-2001; Prakash 2000; Sharma and Vredenburg 1998). This literature is important because it focuses not only on the types of evaluations firms make, but on the nature of the exchange between the organization(s) seeking that another organization change its policy, and on the internal change processes that organizations may undergo as a result of these relationships (that can be owing to rational calculations or normative). This section addresses the nature of the exchange assuming interests and norms do not change. The following third section reviews the literature that captures efforts to change evaluations.

Until the early 1990s much of the literature within organizational sociology was interested in understanding how firms eventually "acquiesced" to demands for societal and other external interests that they change operating procedures and practices (policies) to better ameliorate negative environmental and social impacts. Much of the scholarship in the 1990s, especially those developing what is known as "stakeholder" and "resource dependency" theory, recognized that while important, organizations that come under outside scrutiny do not only **acquiesce (which can be seen as a "lose win" scenario)**, but also assess a range of options that span from outright **resistance** (Oliver (1991), **("lose/win")** to **compromise efforts** (each side meets half way), to **innovative** efforts which attempt to break out of zero sum assumptions to find options "outside of the box" that might lead to **"win win"** solutions (Greening (1992) (Greening and Gray 1994) (Sharma 1998; Sharma and Vredenburg 1998) (Sharma and Vredenburg 1998; Vertinsky and Zietsma 1998) (Figure One). This literature generally recognized that while under severe constraints, individual leaders and organizations do have some degree of agency in shaping turning outside pressure into opportunities (Hoffman 1997: 1015). As with long term strategic internal evaluations, when "win win" relationships might occur, and their form and function, are very difficult to predict a priori, since they require individuals to actively pursue such approaches, and hence depend on the existence of "policy entrepreneurs". In addition, the more complicated the set of pressure, the more difficult responses are to predict (Rowley (1997: 896)

Changing Evaluations of Relationships

In addition to classifying internal evaluations and the types of relationships between organizations demanding policy changes of others, existing literature has also noted that these patterns are rarely static, but change over time (Vertinsky and Zeitsma) in response to active efforts to change either the source of pressure, or to increase those factors that lead to organizational change. While change processes are complex, they can be divided between those that are directed at rational evaluations aimed at addressing organizations existing self interest; and efforts aimed at changing internal organizational values and norms so that their conception of self interest changes (Suchman 1995) (DiMaggio and Powell 1991). For the purpose of this paper, we identify the former by **converting** efforts organizations undertake to change what they believe to be inadequate (resistance or pacifying) policy responses to their original pressure in

order to force the organization to acquiesce, or alternatively, propose win win alternatives. The latter is much more difficult to classify, and often emerges not from conscious efforts to change organizational values, but through learning processes that simultaneously occur throughout these struggles. (Sabatier and Jenkins-Smith 1993), and can result in "normative" isomorphorism often "associated with professionalism" (Powell and DiMaggio 1991: 67).

What is important to note is that the normative changes are hypothesized to produce long-term organizational and/or policy changes because it leads to value changes within the organization while converting efforts based on existing notions of strategic self interests are only durable in so far as the outside pressure is maintained.

In this regard, we note that although difficult to measure, it is important to pay attention to changing conceptions of self interest that might result from the interplay of these factors – i.e. so that the interests of the broader community are deemed to be indistinguishable from, and relevant to, a specific organization's conception of its self interest. In such cases, the organization recognizes that the problem is so complex and so intertwined with other members of the community that the only way very long-term organizational goals can be achieved is to reflect on the range of goals expressed within the community in which they operate. While rare, we suspect that the growing impact of economic globalization may lead an increasing number of organizations to take such an approach, in order to redirect attention from some potential short- or even medium-term benefits (such as a shipping company benefiting from climate change opening up the Northwest passage) to recognition that the long-term impacts could be destructive to ecosystem structure and function and massive and widespread species loss. Just what such an approach would look like is impossible to predict a priori, because it is subject to many wild cards and recognition that not all important values can be measured. However, we also note that in cases such as climate change, where decisions and emissions today can have 300 year lag effects, it is important to understand not only if organizational policy evaluations might take into account the broader community's long term interests, but also *when* such transitions might occur.

Figure One

The Classification of Actor Strategies and Responses

1. Internal decision process: Seat of Pants/Bumbling Through ⇒ **Short term** (time frame/few variables) ⇒ **Long term** (time frame/many variables) (⇒ **Community interests***)
***Community interests we discuss hypothetically as the result of truly long-term thinking, but don't try to use in classifying specific actor responses. This is something we suspect might occur, as self-interest becomes intertwined in broader community at the far right end of the spectrum.

(Catalyst)
Convert
⇓ ⇑

2. Response to pressure: **Resist** (win/lose) ⇒ **Acquiesce** (lose/win) ⇒ **Compromise** (½ and ½) ⇒ **Innovate** (win/win)*
*"Innovate win/win" refers specifically to innovation involving creative problem-solving that addresses the environmental problem and the interests of the actors to the satisfaction of all concerned.

3. Efforts to change initial responses: Manipulating/converting = action meant to change actors and their initial evaluations.

Changing interests Changing values

4. Changes in interests, norms and values may or may not occur as a result of the above interactions.

****In the paper, we primarily classify actors according to their internal processes and responses to pressure (1. and 2. above) but bring in 3. and 4. where appropriate and in the conclusion.****

IV. Application of Framework Issue Areas: A Qualitative Historical and Comparative Approach

Domestic policy

Environmental forest practice rules

Introduction: Issue, Actors and Interests

There are a range of actors and issues (Bernstein and Cashore 2001) involved in forest practices regulations: industry, government (including elected politicians and administrative officials, the latter divided between agency officials focusing on economic development and those focusing on environmental protection), environmental groups, and professional foresters (that tend to reflect latest ideas about scientific management of forests). First Nations are heavily involved over issues including customary rights to the forest resources, as well as sources of indigenous knowledge and culture. Forest

dependent communities are also critical players, as the boom and bust cycle of the forest sector means that they are more deeply affected by changes in forest products markets, and by environmental forest regulations

Application of framework: overview

Until the advent of forest certification in the mid-1990s, most of the conflicts over forest resource management in the United States, Canada, and Europe and globally centered on the development of *governmental* regulations. Environmental groups sought to impose tougher policies governing harvesting operations (how to log) as well as to increase the amount of forest area in which commercial practices were prohibited (forest preservation). Such efforts confronted forest policy networks that until the 1960s were largely closed "clientelist" processes dominated by governmental agencies whose mission was to enhance the economic value of the forest resource (Cashore 1997), and representatives from forest companies and forestry associations seeking to ensure collegial relations among their governmental counterparts (Glueck Rayner and Cashore). Under such conditions environmental groups initially met *resistance* from industry and governmental agencies in their efforts to increase regulatory requirements over the environmental impacts of harvesting. Forest companies and their associations across North America were generally uniform in their response and beliefs, i.e. that they historically practiced rational and scientifically sound forest management (Aplet et al. 1993) and as a result, did not need additional and burdensome regulatory oversights.

Environmental groups undertook a series of converting efforts, but with the exception of conservation efforts aimed at either ensuring that forests lands remained forested (efforts the industry supported as it added to their fibre supply), or efforts to create national parks that would forbid most forms of commercial activity, they met with limited success.

However, the uniform resistance of policy subsystems to respond to such pressures began to *diverge within* North America, as the "first wave of environmentalism" beginning in the late 1960s (Paehlke 1992) resulted in a number of legislative initiatives within the US Congress. Among the most notable pieces of new legislation was the 1973 Endangered Species Act (ESA) requirement that mandated the public land management agencies protect threatened and endangered species on publicly owned forestland. Another key piece of legislation was the 1976 National Forest Management Act (NFMA), which, although initiated to give discretion to the National Forest Service (Hoberg 1992, 2003), required that the Forest Service produce land and resource management plans (LRMPs) that would "provide for diversity of plant and animal communities" and had accompanying, administrative regulations requiring that LRMPs maintain "viable populations of existing native and desired non-native vertebrate species", "where appropriate" and "to the degree practicable." Buttressing these pieces of legislation was the National Environmental Policy Act's requirement that key governmental projects undergo environmental assessments. While these new statutory decisions did not, at first, alter clientelist policy networks at the management level, they sowed the seeds for increased environmental activism and use of the court process (Hoberg 1993), which would provide a remarkably powerful tool in "converting" policy makers towards the environmental group agenda.

Largely as a result of federal action, and the fears that this raised on the part of industry that the federal government might move to step up their regulations on private forest land, industry in Oregon and Washington undertook highly strategic efforts to promote forest practices legislation at the state level. The primary justification for this strategy was to preempt potential federal intrusion into private forestland regulation and to avoid the "hysteria" that they believed underpinned the development of the federal legislative changes.[5]

These forest acts gave timber extraction as a primary goal, creating forest practices boards that at first were dominated by industry interests (with incremental tinkering being made to board membership over time). The statutes are worded to *avoid* litigation (directly at odds with the common assumption that US environmental laws tend to promote litigation) and they reduce the ability of non-resource agencies to have influence in the forest regulatory process[6] and *limit* the influence of other agencies over forest practices rules.[7] Such efforts were an attempt to both pacify the increasing societal pressures to increase regulations, and also propose a "preemptive" compromise strategy – recognizing that by being seen as proactive they might head off more stringent regulations in the future. (The result, as we review below, was the development of some of the most stringent or "restrictive" forest practices polices in North America. However, they are not nearly as stringent as rules governing federally owned forests in the same jurisdiction. Furthermore, environmental groups assert that the enforcement of these forest practice regulations is much less rigorous, and the opportunities for appeal dramatically more limited, than is the case for federal forest lands.)

As a result of the vastly different tools that environmental groups found in the US Pacific Northwest (PNW), most of their converting efforts since the 1960s have been focused on public lands, where they were able to set in motion through litigation efforts legislative guarantees that placed environmental goals ahead of the economic benefits associated with timber harvesting. The most prominent example of the success of these converting efforts in the US PNW was environmental groups efforts to protect the Northern Spotted Owl. Litigation efforts to save this threatened species ultimately led to much more stringent forest practices regulations, and a much greater amount of forest areas taken out of the commercial land base. The result has been a dramatic decline in commercial harvests on federal lands in the US PNW (Cashore 1999).

The dramatic decline on federal lands timber harvesting stands in contrast to relatively stable harvests on private forest lands in the same region over the same time frame (Cashore and Howlett 2006). These different regulatory responses can be explained, at least in part, by the compromise strategy that timber industry interests in Oregon and Washington took in the early 1970s which did increase regulatory stringency in these states vis-a-vis industry in other states, but it also created a durable institutional arena in which to shape specific regulations – an arena that was required to address the economic benefits of the forest when making regulations and limited environmental protections compared to the federal lands policy that economic objectives not trump environmental objectives (Hoberg 1993). Of course, these timber industry strategic calculations were quite different from their less regulated competitors in the US South who were able, for a variety of political and cultural reasons, able to maintain *resistance* to outside pressures for increased regulatory changes. However, this compromise strategy seems to have avoided the predicament in which their timber industry cousins in California found themselves, where a highly strategic and successful environmental coalition succeeded in converting state regulatory agencies and legislators closer toward environmental groups strategic preferences.

The British Columbian and Canadian response to converting pressures from domestic and international environmental groups followed its own unique path. Until the late 1980s the provincial government, and its forest sector, steadfastly refused to acquiesce or compromise with environmental groups over their call for increased forest preservation and forest practices legislation (Western Canada Wilderness Committee 1989). The government argued, as has its counterparts south of the border, that it already practices sustainable forestry, having followed the rational scientific approach denoted by the German school of forestry (Johnson 1993). However, following a change in government that consisted of nearly 40 consecutive years of Social Credit rule, a New Democratic Party (NDP) government came to power seeking consensus (i.e. compromise) solutions to the increasing and escalating conflicts in the woods. Government officials promised to double the amount of protected areas in the province and to introduce new stringent forest practices legislation, requiring companies to adhere to pre-established rules governing such practices as clearcutting and harvesting near streams (riparian zone management)

(Cashore et al. 2001). Owing to the commitments to change that BC was about to undergo, environmental groups on the one hand, and industry representatives on the other, both undertook their own "converting" effort in order to strengthen their role in influencing the inevitable "compromise" solutions the government was certain to promote.

Environmental groups undertook a range of "converting" efforts, including stepping up their boycott campaigns of British Columbian forest practices in Europe and the United States, interacting with US forest companies who were alleging that the BC government subsidized forest companies through low rates to harvest publicly owned timber (see discussion below), making links with aboriginal peoples' conflicts over land claims, as well as civil disobedience aimed at stopping logging in pristine forest. The latter practice of civil disobedience culminated in hundreds of arrests, attracting international attention to logging operations in Vancouver Island's Clayoquot Sound (Carter 1994). While such efforts led to public statements of infuriation on the provincial government (Canadian Press 1994), it also allowed the government to push through, and justify, their efforts to regulate the forest industry, an industry which had been "fending off", or seeking strong limits, on any forest practices legislation that might ensue. In response, the BC industry stepped up their converting efforts through the production of economic studies revealing the burdensome costs of forest regulations (Hoberg 1999). In the end, the government created a highly bureaucratic set of forest practices regulations and forest planning requirements that were a clear compromise – satisfying no one but clearly moving toward the policies demanded by environmental groups. As a result, industry successfully lobbied government to reduce some planning regulations in the late 1990s, following an economic downturn caused by the collapse of the Asian market. Firms then placed much of their "converting" strategy eggs in working to defeat the NDP government. The NDP was in fact defeated in the following election in 2001, replaced by a conservative Liberal party which committed itself to reducing regulatory burdens the previous government had placed on industry.

Assessing Recent Strategic Calculation Beyond the Forest Practices Code

In 2002, the BC Liberals became the new leading political party in the province. This new government declared its intentions to introduce substantial innovations to BC's existing suite of forest policies. What were the strategic calculations of governmental officials in making these changes, and to what forestry interests were they responding? Did they reflect a long-term or community-based strategy? Are they evidence of resistance, acquiescence or innovation? And if so, to what groups? Two very different narratives have been identified that might explain these choices. According to one account, the governmental changes are an effort to "acquiesce" to industry calls for reduced regulatory burden while finding "win win" solutions in which the results do not change, but only the means in achieving them change. Certainly governmental officials have called for this kind of approach and have vested strategic interests in uncovering them, when they exist. However, another narrative sees the regulatory changes as a traditional effort to adjust the 1994 and 1998 compromises between environmental and economic interests. Under this narrative, the incentive for licensees to stick with the minimum of default requirements and avoid results-based innovation, together with the initial reduction of 800 Ministry of Forests staff positions (Parfitt and Garner 2004) reduces state capacity to monitor and oversee a results-based approach.

Of course, different organizations in BC tend to emphasize the story that most conforms to their own strategic interests – hence we would expect that those who benefit from these reforms (industrial forest companies and forest dependent communities) and those implementing them (governmental agencies) will have a vested interest in emphasizing the "win win" nature of the reforms, while environmental groups who have been promoting increased regulatory stringency have strategic interests in emphasizing the "win lose" aspect of this case. Certainly the vast majority of BC based environmental groups feel that the government has acquiesced to industry interests, and have rolled back previous government efforts aimed at pacifying, or meeting half way, their interests in having a greater role in the policy process.

Further research beyond the scope of this paper would be required to have greater confidence in identifying which narrative has the greatest explanatory power. We can, however, make two inferences. First, what is clear is that strategic interests do matter both in the forest policy choices that have been made by governmental agencies and elected officials, as well as environmental groups and the timber who attempt to influence such positions. Second, there will be a correlation between forest policy choices, and the relative success of environmental and economic interests groups in converting government choices to closer to their policy preferences. If this is correct, we would expect the British Columbia's environmental forestry policies before the Forest Practices Code changes to be more stringent, or closer to prescriptions environmental groups were advocating, than would the post Code reforms.

The central piece of new legislation introduced by the Liberal government was the Forest and Range Practices Act (FRPA). A guiding theme of this new act, along with its associated regulations, is a "results-based" approach to forest governance, i.e. a regulatory approach that focuses on on-the-ground results rather than bureaucratic and prescriptive requirements. The mechanism for achieving this reduction in prescriptive requirements, and concurrently maintaining high environmental performance standards, is an increased reliance on the accountability of licensees and the professionals they employ. Both licensees and professionals, including certified professional foresters, biologist, engineers and geoscientists, are then accountable for the results of any proposed management prescriptions.‡‡ The primary stated motives for this results-based, private accountability approach is "to improve the competitiveness of the province's number one economic driver – forestry; to decrease the transactional and operational costs to both government and industry; and to reduce the complexity of the existing Forest Practices Code"(de Jong 2002). The Ministry of Forests (MoF) has reported success in meeting these objectives, including the achievement of 50% "forestry deregulation" as reported in the Ministry of Forests 2003/2004 Service Plan. The Plan claims to have achieved this reduction in regulation "without compromising environmental standards" (MoF 2004: 37).

The new approach of the FRPA and accompanying regulations involves the establishment of government set objectives for timber and non-timber values that must be addressed in licensee Forest Stewardship Plans, which are subject to Ministry of Forests approval. A number of forest practice prescriptions under previous Code regulations have been designated as *default* prescriptions that can be varied upon minister approval of the Forest Stewardship Plan (FPPR Section 12.3). These include protection of riparian areas, wetlands and fish habitat, as well as clearcut size limits, harvesting adjacency and wildlife tree retention. The Forest Stewardship Plans, renewable for up to ten years, are the only plans submitted for government approval, replacing the older requirement to submit specific site plans. This means the location of harvesting activities within the license area is left up to the manager's discretion.

Besides the discretion in locating cutblocks, the additional discretionary power afforded by the new code depends on the specificity of the government set objectives. Currently, the objectives set in the Forest Planning and Practices Regulation are quite broad. For example, general objectives set for riparian areas are: "without unduly reducing the supply of timber from British Columbia's forests, to conserve, at the landscape level, the water quality, fish habitat and biodiversity associated with those riparian areas" (FPPR Section 8). Additional guidance materials are being developed, however, that could serve to better define provincial values at some point in the future. Meanwhile, licensees are allowed considerable discretion in their interpretation of government objectives. This lack of prescriptiveness has led many in the ENGO community to fear that these initiates are acquiescing to industry interest at the expense of

‡‡ The licensees are held accountable through FRPA and the professionals through various enabling professional acts.

their environmental concerns, leading to claims, for example, that "industry writes the results that they are legally required to achieve" (WCEL 2004).

On the other hand, a high degree of discretion also provides an opportunity for forest resource professionals to develop innovative strategies to achieve improved environmental performance and demonstrate measurable on-the-ground results. From the perspective of short term self-interests, however, industries may choose to limit their exposure to enforcement by relying on default minimum standards. Resource professionals who are involved in the development of Forest Stewardship Plans therefore, must balance their own professional standards as well as public pressure to prepare environmentally adequate plans with industry directives to minimize the legal stewardship commitments these plans entail. It is too soon to tell just what priorities and strategies will prove dominant over the early formative years of the new regulatory structure. Thus far only a little over twenty Forest Stewardship Plans have yet been approved, with roughly 400 other plans due for review by the end of 2006. If, during this critical trial period for the new code, resource professionals and firms choose to focus on their short-term interests and minimize their legal liability, there is a good chance that the public reaction, both domestically and internationally, will necessitate a return to a more top-down, prescriptive approach.

While it is up to the industry and professionals whether to move beyond the minimum default requirements and provide specific, measurable results-based prescriptions, it is the responsibility of MoF to monitor and enforce the achievement of those results. In this regard as well, environmental groups claim that the government has acquiesced to industry interests by implementing a 35% cut in the Ministry of Forests budget. This has resulted in the loss of over 800 MoF jobs, and the closure of a number of district offices. Stakeholders claim that this reduction in staff has radically reduced MoF's capacity to monitor on-the-ground management activities and responsiveness to public concerns (Parfitt and Garner 2004). Government interests might point out, however, that while previously the task of on-the-ground monitoring was the part time responsibility of a variety of field officers, this system has been replaced with a full-time team of roughly 300 Compliance and Enforcement officers.

Another inherent tension in the recent changes to forestry regulations, is the difficulty of integrating public involvement into a results-based approach lacking measurable objectives and information on the location of individual harvest operations. Undoubtedly, the reduction in planning and reporting requirements has reduced the opportunity for public participation at the planning end of the management cycle. Whether this is an intended or ancillary effect, environmental groups and other stakeholders see it as resisting their requests for increased transparency. Should future Forest Stewardship Plans provide more precise information and measurable performance targets, however, this would provide a unique new opportunity for citizen involvement in environmental impact monitoring. Without more specifics, both MoF officials and citizens alike are faced with very little chance to hold firms accountable for their actions. While this risk-averse approach may appear to suit industry short term interests, it also removes opportunities for negotiating win win solutions that satisfy both industry and other stakeholders. Concerned ENGOs may therefore resort to confrontational strategies as their only option to ensure their concerns are addressed.

The MoF has initiated an innovative system of impacts monitoring that operates independently of its compliance and enforcement responsibilities. The FRPA resource evaluation program is designed to measure the overall impact of the Act's implementation across its 11 resource values and maintain a feedback loop on these findings that informs future policy improvements. These 11 resource values, however, do not match the internationally recognized Montreal Process Sustainable Forest Management Criteria and Indicators and associated Canadian Council of Forest Ministers (CCFM) Criteria and Indicators. From a long term, global-scale perspective, the linkage of BC's efforts at results-based monitoring with national and international monitoring initiatives would provide an excellent opportunity for international synergy. Existing monitoring programs that could aid in such a linkage, include the

Forest Practices Board's new effectiveness monitoring system, which is based on the CCFM C&I, as well as a variety of non-state forest certification schemes. Long term, strategic thinking will be required, however, if such coordinated action is to occur and result in measurable, on-the-ground improvements. Meanwhile, particularly for those ENGOs and other distrusting of the new regulatory approach, more immediate and targeted monitoring of industry activities may be essential to ensure that forest operations under the new regulatory regime will maintain an adequate level of environmental protection.

A final point of contention among some stakeholders that is worthy of mention here is the particularly strong emphasis that FRPA and other new forest-related acts and regulations place on the production of timber. The timber and non-timber government set objectives under FRPA are spelled out in Part II of the Forest Planning and Practices Regulation (FPPR). These objectives include to "maintain or enhance an economically valuable supply of commercial timber…(and) ensure that the provisions of regulation and of the Act, are competitive in relation to…other jurisdictions (FPPR 6. (a,)(b)." Government set objectives for wildlife protection and a number of other non-timber values are also accompanied by the caveat that protection of these values must not "unduly reduce the supply of timber from British Columbia's forests (FPPR 5, 7 (1), 8, 8.1 (3), 8.2 (3), 9, 9.1)."

The above comparison of BC both across space and time is consistent with an interpretation that environmental actors were more successful in converting the government and forest industry pre-FPC policy than they were post-FPC, where industry influence seems to have undone some of the compromises initiated in the 1990s by the New Democratic Party government. Whether post-FPC changes could result in win win scenarios arguably remains an open question. It depends, for one thing, on further detailed guidance for government set environmental objectives. It also depends on whether industry and resource professionals will take the risk of developing measurable and innovative forest management strategies and whether they will consult with a range of stakeholders in the process. Likewise, it depends on the adequate staffing of MoF's Compliance and Enforcement operations to monitor the proposed results. We hypothesize that such a win win result would require increased and reinvigorated attention to just how this might occur.

Are there examples of other Strategic Win Win Efforts?

Whether recent changes to the BC Forest Practices Code represent an innovative win win solution, or straightforward government strategies to acquiesce to industry demands will depend, in part, on their effects on future behavioral changes on the ground. Environmental groups will be certain to monitor these changes closely. At the same time we note that while the atmosphere in BC forest politics is often polarized and confrontational, it has also yielded some extremely innovative and collaborative efforts, from the 1990s Commission on Resources and the Environment[8], to subsequent and related Land and Resource Management Plan Processes (LRMPs), to the Clayoquot Sound Scientific Panel process [9]. Arguably no greater example of this win win effort exists than the Feb. 6, 2006 Sprit Bear announcement that protected 1.2 million hectares of pristine old growth forests (Thomas 1997) (McAllister, McAllister, and Young 1997) in an 6 million hectare LRMP. The effort was spearheaded by environmental groups, forest companies, and indigenous people who collaboratively transformed a "joint solutions" initiative originally championed by environmental and industry officials into a science-based strategy for sustainable forestry within a coastal old growth environment.[10] In the beginning the joint solutions project was certainly sparked by strategic self-interests. Environmental groups turned to market pressure to preserve BC's Central Coast region, which they dubbed the "Great Bear" Rainforest (Greenpeace UK 1998; AP 2003; Fong and McCabe 1998; Kohm and Franklin 1997; McAllister, McAllister, and Young 1997; Greenpeace 1997). However, what has transpired since this time is an evolution into a community based conception of self interest. Indeed, the initial truce on the part of environmental groups to drop their markets campaigns in exchange for deferral of companies logging in this region (in order to give more time to reach a joint agreement) did not include First Nations groups. However, in an illustration of their

multi-stakeholder conception of policy making, the original signatories Sierra Club, Greenpeace, the Coastal Rainforest Coalition, Weyerhaeuser, Western Forest Products and Fletcher challenge, immediately apologized and reached out to First Nations, explaining that [i]t was not our intent to disrespect the interests of First Nations" and that it was their "intent …to create a more stable opportunity for all parties involved in forest issues on the central and north coast of B.C. to work together to develop new approaches to resolving controversy over conservation and management of old growth forests." (Bernton 2003)

And though the road to a final agreement was not always smooth (Bradford et al. 2003), it was clear that over time the parties agreed that they needed to act collectively to preserve goals they all deemed legitimate. An interim agreement in 2001 institutionalized interest in learning across different specific stakeholder interests, and the needs to find a collective solution – including undertaking joint scientific research projects, doubling protected areas in the region to 21% and creating a multi-million dollar transition fund for communities that would be hurt by reduced logging (Morishita and Hoberg 2001)

Though a detailed history of the Central Coast agreement is beyond the scope of this paper, a broad strategic analysis reveals a landmark case of win win innovation based on an evolving expansion of initially conflicting, short term interests. Economic actors became personally committed to the environmental goals of the coalition, environmental groups became vested in First Nation's issues and appreciated the challenges that forestry firms face. Furthermore, while government was a critical and crucial participant, it came in only *after* environmental and industry groups had undertaken their own interactions and decision making processes (Morishita and Hoberg 2001). In the end, the 2006 announcement can be described as nothing short of impressive. It adds 1.2 million hectares of protected areas to the existing 600, 000 in the region (increasing BC's total protected areas in the province to just under 14%, it creates specific standards for "old growth, riparian areas, biodiversity, grizzly and black bear habitat, and salmon habitat", it requires the "Use of traditional, local, and scientific knowledge of natural ecological patterns and processes" as well as the use of "risk assessment to develop ecosystem-specific management." In addition, it institutionalizes new collaborative approaches to implementation and engagement (British Columbia. Ministry of Agriculture and Lands and Premier 2006). It is arguably for these reasons that Forest Ethics official Merran Smith referred to it as being "like a revolution," offering "a new way of thinking about how you do forestry"; why Premier Campbell explained that "This collaboration is something we have to take into the future, and it is something the world can learn from." Why Heiltsuk Tribal council Chairman Ross Wilson explained that "we can manage our destiny," and why Patrick Armstrong heralded the 2006 final agreement as a "big big deal" that "needs to celebrated" noting that "Everyone had a greater interest in resolving the problems than continuing the conflict" (Krauss 2006).

The above sections took care to apply our classification framework to assess the strategic approaches to forest policy development in BC over time. Such an approach mirrors the vast majority of analyses of BC forestry that tend to examine BC developments in isolation from other Canadian provinces or its competitors in the United States and globally. Such an approach is problematic as it can lead members of the BC forest policy community to neglect putting in context what BC is doing in comparison with the rest of the world. For example, if the BC government's regulatory changes are asserted to remove environmental regulations, and if BC Ministry of Forests staff reductions are asserted to reduce its effectiveness reduces its enforcement capacity, and if these assertions are used as a reason for giving preference to timber produced outside of BC, then we would actually need to know how environmental regulations and enforcement *compare* to other jurisdictions. That is, we have no way of knowing the impacts of shifting timber producing choices away from BC unless we also know what is going on elsewhere.

While it is beyond the scope of this paper to apply our evaluation framework to historically discuss the evolution of other countries forest policies, the following section draws on Cashore and McDermott (2004) to assess, at a single point in time, how BC's regulatory regime compared to other countries. The section then concludes with an analysis of how such comparisons have, and potentially can be, used strategically to improve environmental forest practices worldwide.

The BC forest policy record in comparative context[11]

Cashore and McDermott (2004) compared forest policies across a wide range of issue areas critical to global environmental forest health. These included specific forest practice policies as well as the crosscutting issues of plantation management[§§], biodiversity protection, policy enforcement and non-governmental initiatives such as forest certification. For the purposes of this paper we will focus on state-based forest practice policies and biodiversity protection. We note that the standardized comparison of what are often very complex forest policies across different political and environmental contexts is a problematic endeavor indeed. Nevertheless, we have entered an era of globalization in which forest products are increasingly traded globally that such analyses have become a fundamental requirement for transparency and good governance. Forest practice policies, while indisputably complex in many jurisdictions, are perhaps among the easier policy types to compare in a systematic fashion. Let us first, then, review our framework for the comparison of specific forest practice policies across a range of substantive areas.

We use three different approaches to highlight key policy differences. The first is the classification of policy approach according to the level of discretion it allows forest managers in shaping on-the-ground forest management practices. This classification system distinguishes, firstly, between mandatory policies and voluntary guidelines, with mandatory policies providing less discretion than voluntary approaches. In addition, it classifies policies as either performance-based or procedural. Performance-based policies spell out specific on-the-ground forest practice requirements and hence devolve relatively little discretion to forest managers. Procedural policies require that the manager develop plans or procedures to address particular management concerns. While planning requirements can be very elaborate and burdensome, by definition they do allow the manager some discretion to shape forest practices on the basis of procedural justification.

In sum, therefore, our comparative method distinguishes among four distinct policy approaches classified according to their level of prescriptiveness or discretion. Mandatory performance-based requirements are the most prescriptive, permitting the least manager discretion. Mandatory procedural policies afford somewhat more discretion, followed by voluntary performance-based standards and finally voluntary procedural guidelines, the latter being the least prescriptive (although still more prescriptive than no policies at all).

Why is it important to classify policy approach on the basis of prescriptiveness? First, doing so will allow us to compare a large number of countries in a systematic way according to a key attribute central to many policy debates. This attribute is key to a large number of stakeholders who, for different contextual

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[§§] We have adopted the FAO definition of plantations for the purpose of systematic comparisons across countries. The FAO defines plantations as "forest stands established by planting and/or seeding in the process of afforestation or reforestation. They are either of introduced species (all planted stands), or intensively managed stands of indigenous species, which meet all the following criteria: one or two species at planting, even age class, regular spacing" FAO. 2001. Forest Plantation Resources, FAO Data Sets, 1980, 1990, and 2000. Rome: Forest Resources Division, FAO.

reasons, give varying degrees of trust that forest managers will encourage environmentally sound practices if left to their own devices. On the other side of the debate, many forest managers find prescriptive policies costly and insufficiently flexible to address the tremendous diversity of contexts in which forestry is practiced. For the purposes of our analysis, therefore, the level of policy prescriptiveness provides important clues to the political dynamics of each jurisdiction in question. Even more importantly, it sets the stage for future analyses that can assess what policy approach may be more effective under which conditions.

The level of policy discretion, however, tells us nothing about the extent of protection afforded. For example, one can establish a non-discretionary policy that provides only marginal environmental protection, or enact procedural policies that cripple entire forest operations. In order to address this issue, therefore, a second comparative method used was the quantitative comparison of environmental performance thresholds. Finally, the tri-partite comparative method includes a qualitative discussion regarding the limitations of these methods in capturing important contextual differences. This qualitative discussion is particularly critical given the vast environmental, social and economic diversity of settings in which these forest policies are enacted.

In order to apply our framework systematically and consistently across jurisdictions, it was first necessary to carefully select and define the forest practice issues we would assess. For this purpose, we selected five policy criteria, along with associated indicators that covered a breadth of issues related to environmental forest protection. The five criteria are: riparian protection, clearcutting and related cutting rules, reforestation, road building and the calculation of annual allowable cut. While far from comprehensive, these criteria do address issues of commonly accepted importance. However, as will be explained further in this paper, the primary utility of this type of assessment is to promote policy learning through standardized comparison. The intention is not to promote one country's efforts over another's. The list of policy criteria covered is not exhaustive, nor does our framework address the issue of effectiveness, either in terms of consistency in applying the policy on the ground, or in terms of environmental protection.

The selection of case study jurisdictions is also of critical importance. The case studies listed here are countries that lead their respective regions in forest cover and/or value of their import/export wood products trade. For those countries where most forest policies are determined at a sub-national level, sub-national jurisdictions were selected for the size of their forest area and/or volume of wood product production. Likewise, the landownership type under comparison is that which dominates the forest area and/or forest production within the given jurisdiction. The case studies included in this paper are: Canada (British Columbian provincial lands), the US (Georgia and Washington private and US Forest Service lands), Germany (Bavaria private lands), Finland (private lands), Australia (New South Wales private lands), Indonesia (federal lands), and South Africa (private plantations).[***]

Empirical Results/Findings

When applied to our case study jurisdictions, this classification of forest policy approaches revealed striking differences both among jurisdictions as well as among policy criteria within the same jurisdiction. In general BC policies ranked as among the most consistently prescriptive of the thirty-eight case study

[***] In many countries, including South Africa, the rules regulating the management of tree plantations are very different from those governing natural forests. In these cases, again, we address those regulations that pertain to the majority of the forested land base and/or produce the majority of total industrial roundwood volume.

jurisdictions. The US Southeastern states, in contrast, consistently afforded the greatest discretion across multiple forest management criteria.

A comparison of environmental performance thresholds likewise revealed a great diversity of approach. For example, the following chart shows the results for one key policy criterion, i.e. the required width of riparian buffer strips, across a selection of key jurisdictions in different world regions.

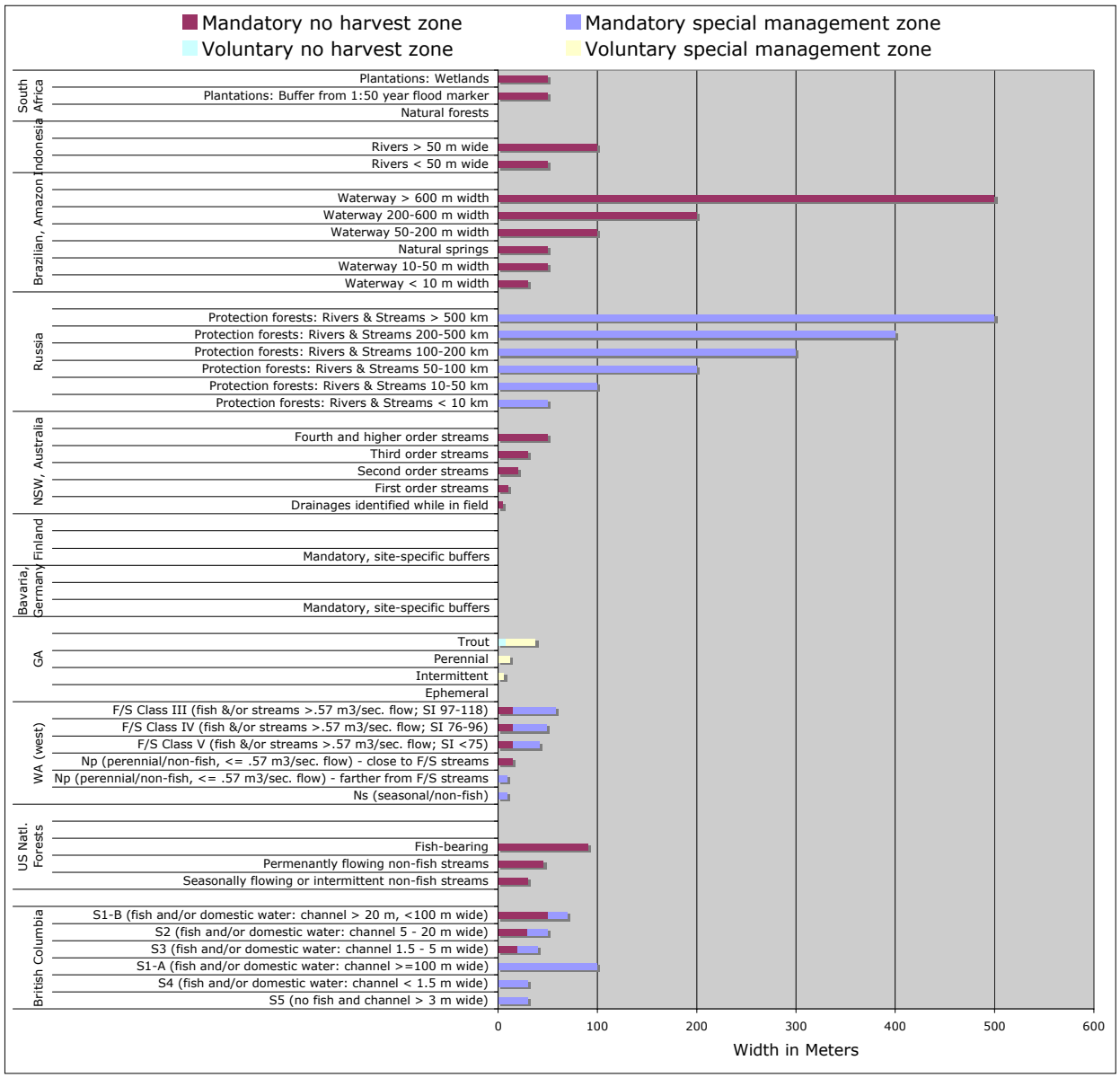

Figure Riparian buffer zone widths in 11 jurisdictions worldwide

As was found with the policy approach, this chart reveals substantial regulatory variation among jurisdictions. Of course average widths and other biogeoclimatic factors vary substantially between these jurisdictions. However, environmental differences are not adequate for explaining the full extent of the variation (Cashore and McDermott 2004). Furthermore, the total policy variation is even greater than that captured in these charts, which represent summaries of sometimes immensely complex regulations. For example, the meaning of "special management zones" varies between minimal harvesting restrictions to

high basal area retention or prohibitions on commercial harvests. In order to compare "apples with apples", therefore, we can further refine our analysis to compare riparian "no harvest zones" as a category with more consistent meaning. No harvest zones are widest in the developing country case studies, led by those of the Brazilian Amazon. BC's no harvest zones are less restrictive than those of the developing country case studies and the US Forest Service, about on par with New South Wales and Washington state private lands, but more restrictive than Bavaria, Finland and Georgia state. Of particular concern to many BC ENGOs, is the relative lack of protection required for small, non fish-bearing and intermittent streams. Worldwide, no harvest zones appear to be less common for such streams. Some policies that lack precise or more nuanced definitions of stream types may simply not address the issue of minimum size and intermittency. This lack of precision could translate into considerable ambiguity on the ground, perhaps leading to greater manager discretion.

Another policy indicator that frequently incorporates environmental threshold requirements, are harvest cutting rules. In temperate regions these commonly take the form of clearcut size limits. Such size limits may vary for a wide range of reasons, including differences in forest type and regeneration patterns within any single jurisdiction. Due to high species diversity and other environmental differences, cutting rules in tropical countries are commonly designed to address uneven aged forest management through policies such as minimum diameter limits. Regulations in the Brazilian Amazon take yet a different approach, allocating a large proportion of private forestlands as reserves and administering permits to deforest the remainder. In sum, comparing cutting rules across different world regions reveals a high degree of regulatory diversity.

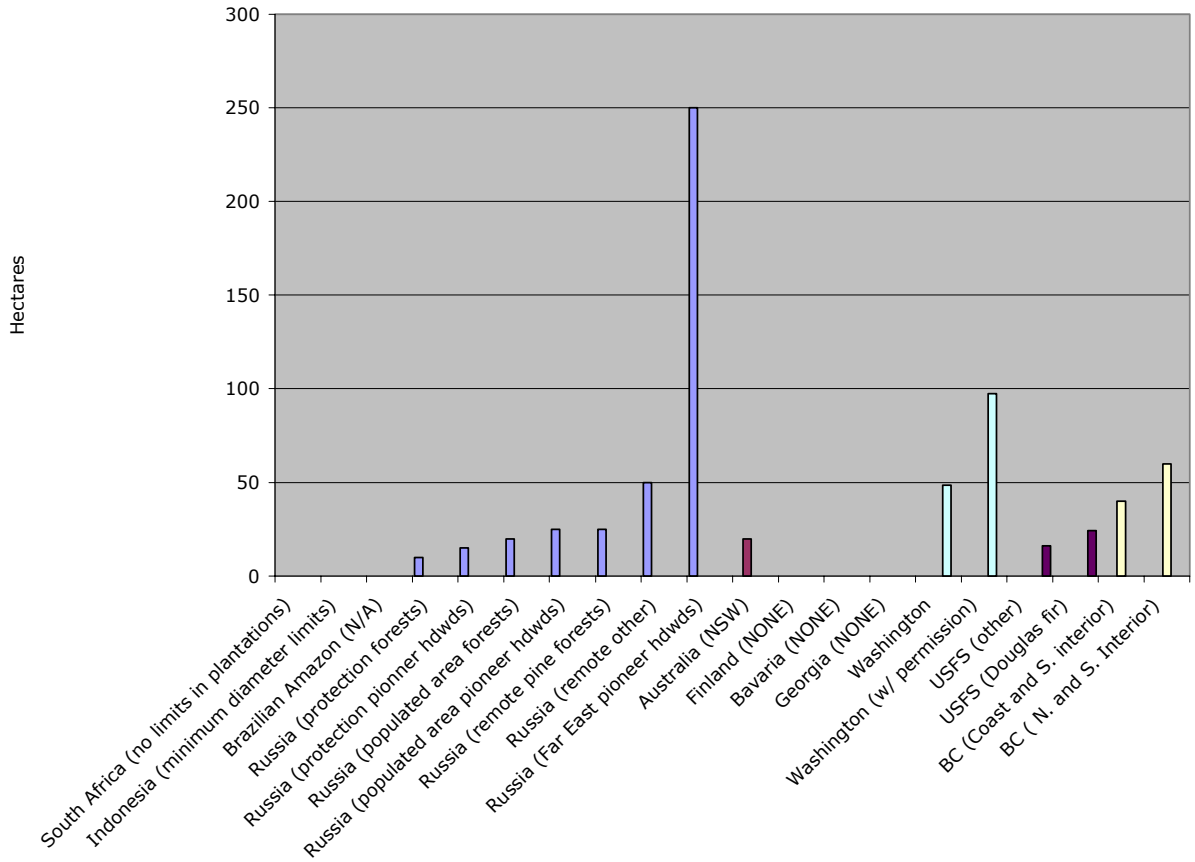

Figure Cutting rules and clearcut size limits in 11 jurisdictions worldwide

Once these different environmental threshold requirements have been identified, it is then possible to analyze more precisely why they are different and what this may mean for environmental protection. Some of the reasons for this variation may be political such as we observed in our earlier comparison of forest policy development in British Columbia and the US Pacific Northwest. Similar in depth analyses could be conducted to facilitate further learning about how different interest group strategies and institutional dynamics yield different policy results. While further research is needed to conduct such analyses on this broad range of case studies, it is nevertheless possible to gain further explanatory power through a general qualitative discussion that puts these different "facts and figures" in their geographical and historical contexts.

As already discussed, variation in biogeoclimatic condition helps to explain some policy differences, such as the very large maximum river widths included in the Brazilian Amazon's riparian policies, or different clearcut sizes based on the forest type and the regeneration patterns of commercial tree species. Likewise, socio-economic factors such as forest management norms, land ownership type and size, management intensity, market pressures and enforcement capacity both shape policies and influence their effectiveness. For example, when comparing regulations limiting clearcut size, it is important to realize that the average size of forest holdings in Bavaria and Finland occupies less than a tenth of the area of the clearcut size limits under BC forest practice regulations. The different land tenure arrangements, plus different market dynamics and forestry norms in these different jurisdictions may, in fact, exert a much stronger influence on clearcut size than that exerted by forest practice regulations alone. Policies also interact with each other within a given jurisdiction in shaping on-the-ground practices. For example, riparian zone prohibitions on clearcutting are much less important if clearcutting is not a common

practice, or is prohibited both inside and outside of riparian areas. Likewise, the environmental impacts of clearcutting are shaped in part by any additional leave or adjacency requirements.

Another critical contextual issue relates to the manner in which policies are implemented. Clearly the issue of enforcement is of central concern in all jurisdictions, and British Columbia is no exception. However, the lack of capacity for enforcement in developing countries and countries in transition is so severe in some cases as to render the policies either meaningless or vulnerable to corrupt favoritism and manipulation. A more subtle, but also critical, factor to consider in interpreting these policies is the issue of government exemptions. Most policies are susceptible to exemptions under some circumstances. However, policies such as the BC Forest and Range Practices Act have institutionalized the application for exemptions. In the case of BC, the prescriptive, quantitative thresholds listed above constitute default requirements. Exemptions are institutionalized through the creation of alternative Forest Stewardship Plans. Our first two comparative methods, i.e. the classification of policy approach and comparison of environmental thresholds, must be considered in light of such contextual factors lest they obscure these important differences.

Application of framework

This type of international comparative policy analysis is becoming essential with increasing globalization. BC's export dependent forest industry, in particular, must be able to communicate its policies at an international level and increase its awareness of environmental forest practice regulations elsewhere. The above analysis illustrates that BC forest practice regulations are more consistently prescriptive than in many other jurisdictions worldwide. It also shows that these regulations do include environmental performance thresholds addressing key issues related to sustainable forestry and that these requirements are on par or exceed those of a number of other developed countries worldwide. Just what the BC forestry community does with this information, however, will depend on both the length of its vision and the number of interests it considers in its strategies.

If immediate organizational self interest characterized strategic responses, we would expect those at the receiving end of environmental group's markets campaigns, such as governmental agencies, industry interests, and, to varying degrees, professional forester associations, to use such information to defend themselves as responsible stewards of forest lands, and to assert that their forest management practices have been unfairly portrayed. We would also expect them to argue that all counties' forest management practices should be scrutinized, not just their own. As self interested organizations who strongly believe that they are doing a commendable job attempting to balance environmental, social, and economic objectives, we would expect that they use these comparisons to assert that there forest practices are among "the best" in the world In response, we would expect environmental groups to view such comparisons as dampening their ongoing markets campaigns, and hence, working against increased environmental protection. We would also expect environmental groups to challenge the limitations of such comparisons, and emphasize, for example, that a study of rules on "paper" often tell us little about what is happening on the ground. In turn, we would expect government and industry to defend the comparisons as legitimate, and certainly better than undertaking no systematic comparisons at all. This, is indeed, precisely what happened when Cashore and McDermott issued their 2004 report.

What might be the effects of this approach? We theorize below that while not inevitable, such interactions could actually result in a "ratcheting up" of world-wide environmental standards, if environmental groups expanded their critiques of BC to include competitors, such as Russia, China and Brazil. As we detail below this ratcheting up effect would in part, be underpinned by BC government and industry assertions that it had some of the "best" forest practices in the world, as it now would have a vested interest in maintaining and defending these statements. Hence, instead of decrying environmental regulations as simply costly as they might have in the past, they would now have a self interest in ensuring that they

equally meet economic and environmental goals – as a means of reducing markets pressure – hence, in essence, requiring that economic considerations also consider environmental ones.

Such a scenario is not inevitable, nor ought analysts to be pollyannish about this. It is, however, a plausible scenario that sees potential win win solutions out of primarily narrow self interest calculations.

Indeed, we envision another scenario that could either be sparked by the above process, or might be achieved directly through conscious decisions on the part of BC stakeholders to undertake broader, community based, conceptions of self interests. Under this approach, stakeholders might use comparative forest policy comparisons as we reviewed above to open dialogue to encourage policy learning and continual environmental improvement. Such learning could occur within BC, and also globally, where BC stakeholders could communicate with others in the global community to inspired broad based win win strategies.

Such an effort might then focus countries around the world on systematically assess the relationship between regulatory regimes and policy effectiveness. Such efforts might uncover, for example, that various components of the forest policies in each of the above case study jurisdictions provide potential solutions to commonly shared problems. This collaborative research and dialogue, we argue, would be helpful not only in improving domestic policies, but also international policies as well. In later sections we will talk about Canada's efforts to promote the development of global standards of good forestry. As will become clear in these analyses, many countries are currently not willing or ready to submit to such visions coming from Canada or anywhere else outside of their own borders. If, on the other hand, a shared vision can be created through mutual policy learning about different countries' existing environmental regulations, perhaps this might gradually lead to a better collective understanding. This shared understanding, in turn, may ultimately lead to the end goal of effective global governance.

Domestic policy – Tenure/stumpage reform

Introduction: Issue, Actors and Interests

Arguably no other issue area in BC forestry has been so influenced, scrutinized, and polarized, than BC's stumpage policy (what governments charge for the right to harvest publicly owned timber) and associated "tenure" issues from which this policy flows (who has the long term rights to harvest this timber). At the heart of the dispute are very different goals about what stumpage policy ought to reflect, leading to charges by select US forest companies, known as the Coalition for Fair Lumber Imports (CFLI), that BC policies subsidize their Canadian competitors. Environmental groups, who promote lowering harvest rates as a means to improve the environmental conditions of the forests, believe that higher stumpage prices will reduce the rate of cut to more "sustainable levels". Forest dependent communities, which have benefited from historical requirements that companies employ people from the regions in which the wood is harvested (known as "appurtency requirements"), see stumpage policy reflecting their community development goals, while forest companies who have long term rights to harvest the timber, through the existing tenure system, have strong vested interests, as profit maximizing companies, in keeping stumpage low in order to reduce their input costs. Forest workers also have a vested interest in stumpage policy, as, historically at least, their relatively high wages have been reflected, or offset, by lower stumpages rates than otherwise would have been the case. Those profit maximizing firms that do not have tenure licenses, such as many small and medium size business that belong to the BC Truck Loggers Association, have a vested interest in increasing their access to the province's wood supply. The provincial government must attempt to balance these interests, but also bring to its evaluations other broader goals including revenue concerns (to pay for education, health and other social services demanded by the general population) and community development (which may emanate from governmental official's personal values, or reflect their own interests in getting re-elected). In addition,

different governmental agencies often emphasize different values – the Ministry of Forests has historically been seen as a promoter of sustainable economic development, and the Ministry of the Environment (in its various iterations) has emphasized biological diversity and ecosystem concerns.

Application of framework: overview

Stumpage policy has been historically associated with the development of a variety of long term timber licenses which together are referred to as the "tenure system." This system was developed with the hopes that by granting companies long term rights to harvest timber, harvesting would be done "sustainably," thus, ending the previous practices of "cutting and running" in which companies maintained little attachment to the land once harvesting operations ceased (Cashore et al. 2001). Just how companies would be charged for the trees they harvested in a particular year is known as "stumpage" policy. Historically, the approach to developing stumpage policy reflected what is known as the "residual system" in which the stumpage rate would be equal to the difference between the price received in the market place for the timber and a company's input costs (including labour), thereby allowing for an appropriate level of profit.

Rather than reviewing the immense and complex story of just how these calculations are made, and how they have changed historically, we pick up the story of stumpage policy in 1982, the date to which modern day controversies and dilemmas can be traced. It was in 1982 when select US forest companies sought trade relief from their Canadian competitors.[12] They asserted that the fees Canadian forest companies paid for the right to harvest publicly owned timber amounted to an unfair subsidy. In the decade leading up to this allegation US forest companies had been stung by a significant increase throughout the 1970s of the Canadian share of the US softwood lumber market, which coincided with decline in the value of the Canadian dollar; and by a series of environmental regulations governing forest management in the US Pacific Northwest. These companies attempted to use US trade law to *"convert"* Canadian provincial governments, especially British Columbia's, to either acquiesce to their demands to change their system of collecting resource rents, or if the governments refused, to have punitive import tariffs imposed. Initially, Canadian governments and their forest companies successfully *resisted* such efforts, as the US Commerce Department ruled in 1982 that British Columbia's and other provinces stumpage policies did not constitute subsidies. Refusing to *acquiesce*, US companies undertook a series of strategic maneuvers including retaining a high profile US law firm, which in turn, spearheaded two simultaneous efforts: lobbying US Congress to make US trade law more favourable to their case; and combing legal precedents in other trade cases that might bolster their arguments. These efforts were highly successful with the US Commerce Department, following a second allegation, reversing its decision in 1986, preliminarily[13] finding that a subsidy did indeed exist (despite no changes in Canadian stumpage policy), and the US International Trade Administration likewise ruled that Canadian exports "injured" US producers. The story of how Canadian provincial and federal governments, opposition political parties, individual forest companies, trade associations and environmental groups since this time has oscillated between *"seat of the pants"* efforts that defied even the most simple systematic analysis, and *short term strategic* efforts that often pitted different interests within Canada against each other, as much as it did Canada against the United States. Repeated efforts to undertake long term strategic efforts have failed miserably, with latest developments unfolding quite predictably, and with little end in sight for any long term resolution. The remainder of this section reviews these developments, and then reflects on what various British Columbian and Canadian interests might do to adopt innovative win win, long term strategic solutions.

1986 and Beyond: Oscillating Between Seat of Pants and Short term Strategic

The story of stumpage policy since 1986 cannot be reduced to a discussion of Canadian versus US interests, but instead must be disaggregated among various interests within Canada and within the United

States– an effort that reveals a range of different strategies across interests in both countries, ranging from what appear to be seat of the pants efforts to evaluations that best fit under our strategic short term classification. Indeed, it appears that the fact that interests do tend to diverge within British Columbia and Canada has hindered the development of a concerted, coherent, and systematic long term approach. Such fragmentation was immediately evident following the 1986 US Commerce Department decision to reverse its no subsidy finding, as not all British Columbian interests, especially that of the provincial government, were particularly dismayed. Maverick Bill Vander Zalm had just earned the Premiership and immediately appointed forest minister, Jack Kempf, who had long criticized BC's stumpage system for receiving inadequate returns to the Crown, and, in addition, for its impact in squeezing out small businesses from sharing in the province's forest economy. Kempf found himself in the relatively unique position of realizing that "acquiescing" to the coalition pressure might actually help achieve two domestic goals: increasing provincial revenues at a time of severe budget constraints; and paving the way for what he believed were necessary stumpage increases. It was a unique juncture when the agenda of provincial government coincided more with the actions of US, rather than British Columbian forest companies. Recognizing this, Kempf initiated contact with the US CFLI to make them aware of their convergent interests: as one US forest company official noted, "Kempf was the only one in Canada who recognized that BC was getting ripped off...and made it plan to the Coalition that the BC government wanted to take more out of the industry, and after the initial meeting, we agreed to keep each other informed."[14]

On the other hand, British Columbia forest companies, supported by most forest unions and many forest dependent communities, were adamant that they ought to resist US pressures, believing that they would prevail following the US Commerce Department's final determination due at the end of December 1986. Meanwhile, a handful of British Columbia environmental groups began to take a strategic interest in this dispute, reasoning that it gave credence and support for their longstanding efforts to have provincial stumpage policy reflect what they asserted to be wide ranging environmental costs that occur following logging operations. The federal government, meanwhile, was directly involved because it had constitutional authority to formally address the US complaints and was interested in demonstrating to the Canadian public that it was able to "resist" or "stand up to" American pressure, at a time when it was simultaneously pursuing a Free Trade Agreement (FTA) with the United States. The initial response out of this soup of different interests created a unique conjunction of events that resulted in a compromise "Memorandum of Understanding" (MOU) (Percy and Yoder 1987) in which the Vander Zalm and Kempf's solution prevailed: the US coalition would compromise, agreeing to drop its countervail case in exchange for an across the board 15% export tax on Canadian lumber. As Kempf himself noted, "It was quite clear to me that the US Commerce Department and Coalition for Fair Lumber Imports had a very good case and so it behooved us to try then and get the best deal that we could, and I think we did."[15] Kempf's Deputy Minister of Forests reasoned that, "it is hard to complain when somebody [the US] is trying to help you have more revenue."[16] Just as important, the deal would allow for this amount to be reduced following verified increases in provincial government's stumpage calculations. These provisions allowed Vander Zalm and Kempf to institutionalize stumpage price increases, against the interests of forest companies and forest unions, in ways that they arguably would have been unable to do in the absence of US pressure. Similarly, a reluctant federal government reasoned that a temporary truce would facilitate free trade negotiations with the United States.[17]

However, even this conjunction of events in which Vander Zalm and Kempf found themselves cannot be interpreted as strategic long term maneuverings – this agreement, opposed by most BC forest companies, and reluctantly agreed to by the Canadian federal government, (which also had a short term strategic interest in removing the dispute during sensitive FTA negotiations[18]) represented a short term solution. It was an uneasy armistice that in no way addressed the underlying causes of the dispute, and in no way resolved or created innovative solutions designed at a long term resolution.

Cancellation of the MOU

Predictably, the MOU was cancelled in 1991 following a series of BC provincial government stumpage policy changes in which the US had agreed to reduce its import tariffs to 0%. Bolstered now by a strong belief that there no longer was a subsidy (after all the US agreed that recent stumpage policies offset previous asserted subsidies), BC forest companies, who were never happy with the agreement, lobbied the Canadian conservative government of Brian Mulroney to abrogate the MOU, which it did. The Mulroney government, was emboldened by its signing of the Canada US Free Trade Agreement, and its highly prized Chapter 19 "Dispute Settlement" mechanism that permitted the creation of bi-national panels to oversee trade disputes. Although the panels could only determine whether each country's trade decision were consistent with their own trade laws, it also had the power to "remand" decisions for reconsideration or, indeed, reversal, when they determined that administrative agencies had not acted within the bounds of their own laws. Believing that the US process was politically biased, Canada now felt confident the NAFTA bi-national panel process would be able reverse any decision that had been influenced by political maneuverings.

The US reaction to the abrogation was swift. The US Commerce Department agreed to the CFLI requested that the Commerce Department undertake the rare effort of "self initiating" a third countervail proceeding against Canadian lumber imports. Meanwhile, the US CFLI undertook a number of highly strategic, albeit short term, efforts to convert Canadian forest companies and BC governments towards acquiescing to their demands. These efforts included lobbying the US Congress about the need for additional tariff relief, bolstering its review of legal precedent, and reaching out to British Columbia's environmental groups to create a "bootleggers and Baptists" efforts – as some environmental groups reasoned that it was in their strategic interests, even if only in the short term, to interact with the US Coalition (even though both groups recognized that on almost every other issue they would find themselves on opposite sides of the fence). British Columbia's New Democratic Party (NDP) provincial government, which campaigned on increasing stumpage prices, reforming the tenure system, and on improving environmental protections, founds itself in an awkward position. On the one hand it was about to undertake many efforts that the US Coalition would deem positive moves – on the other hand it had a strategic interest in being seen as "standing up" to or resisting American pressure, and they were well aware of the criticism Vanderzalm and Kempf faced for not doing so. As a result, Forests Minister Andrew Petter strongly criticized the US pressure, a strategic move that gained some favour with a forest products industry it was about to regulate in ways that it had never been before. Similarly a range of Canadian opposition politicians used the softwood lumber dispute to either assert that the federal government was not adequately standing up to/resisting a "bullying" United States, while the Mulroney government stressed that its successful signing of the FTA meant that it created the necessary mechanisms to fend off such pressure.

This time neither the BC provincial or federal governments were in any mood to negotiate a compromise deal, and they let the US countervailing adjudications proceed to a final determination. Despite the BC stumpage and other policy increases that had reduced the previous tariff to 0%, the US Commerce Department again ruled that a subsidy existed in the amount of 6.3% and the US International Trade Administration (ITA) again ruled that such efforts injured US producers. However, this ruling was important, as it reflected a strategy on the part of the US coalition to expand its initial complaints over stumpage policy to now include British Columbia's raw log export restrictions. The introduction of this additional measure was strategically important as the Commerce Department ruled that raw log export restrictions constituted *more* of a subsidy than the stumpage (which was ruled to be only 2.9%). However, its inclusion was embarrassing to a number of other interests on both sides of the border. First, it was embarrassing to the US federal government since it practiced similar restrictions on its own public lands, finding itself in the awkward position of fighting a Canadian practice that it supported domestically. Even more embarrassing was the awkward position in which British Columbian environmental groups

supporting the CFLI found themselves. They publicly supported raw log export restrictions as they believed this policy would create more "value added" production in the province, hence weaning the province's forest economy off of its emphasis on harvesting lumber. In a highly strategic move, the BC Minister of Forests noticed this contradiction, and slammed those environmental groups for supporting the US coalition as hurting BC jobs and his efforts to build value added industries in the BC forest sector (Vancouver Sun 1994; British Columbia. Economics and Trade Branch 1994).

With most Canadian forest companies and provincial and federal governments now reasoning that the US domestic trade adjudication process was influenced politically, a feeling bolstered by some academic analyses (Kalt 1994), the strategic evaluations of most of the Canadian interests, with the exception of the environmental groups noted above, were aligned in their efforts to "fend off" US pressure. As a result, the Canadian government did *not* seek a *compromise* and, instead, appealed the US decision to an FTA dispute settlement panel (Hoberg and Howe 2000). Following two years of legal arguments and maneuvering, the Canadian effort prevailed. The US was forced to refund the duties, and successful efforts to fend off US pressure were heralded as a victory for Canada. Such a victory would be short lived. The US coalition regrouped, undertaking a number of "converting" effort in its desire to achieve, at the very least, another compromise agreement. It successfully lobbied US Congress to "clarify" the precise sections of US trade law that the bi-national panel had ruled were not properly applied – ensuring that any future North American Free Trade Agreement (NAFTA) panel would not be able to rule on the same issue in Canada's favour. The US Coalition again launched interactions with British Columbian environmental groups, this time soliciting letters from them which asserted that not only did BC have lax environmental regulations, but that these amounted to a subsidy as well.[19] Although such arguments played no role in adjudication processes, they were extremely important, the US Coalition strategized, in raising the concern in Canada that the Congress might act to render any future countervail activity even more likely to succeed.

Although the BC government had, in 1994 (Cashore et al. 2001: Chapter Six), dramatically increased stumpage prices, much to the consternation of its forest companies, events in the US meant that most BC officials strategized that the writing was on the wall – they could, in all probability, not fend off another countervail and decided to compromise - and strategized that a short term temporary truce was the best they could hope for. This time, British Columbia forest companies, and especially those in the interior of BC, whose market share was growing and whose reliance on non-US markets stood in stark contrast to forest companies operating on BC's coast, were strategic in their efforts to find the best compromise possible. Led by Lignum's Jake Kerr, they offered an innovative compromise solution that some analyses claim moved in the direction of a "win win" solution in which the outcome was higher than traditional "zero sum" efforts before this time. Known as a "quota" system, the innovation came from the agreement in which the first 14.7 million board feet would proceed duty free, and any amount over this would be subject to escalating quota. This approach significantly reduced any government revenue windfall that had occurred under the previous temporary truce (the MOU), but interestingly, served to "lock in" BC's export share to the US market, which had been declining slowly over time in favour of companies operating in Alberta, Quebec, and Ontario.

These developments were important, as they would create a wedge in previously united Canadian positions among its top four provinces, and importantly, raised the ire of what were Canadian industry allies in the United States – lumber dealers and home builders that benefited from Canadian imports. Indeed, forest economists have noted that this agreement may not have impacted Canadian forest companies that greatly (as it would serve to raise prices for all products exported to the United States) but most certainly hit one group the hardest: the US consumer.[20] Most importantly, this agreement illustrated the failure to successfully implement, or promote, long term solutions. Instead, the Canada-US Softwood Lumber Association (SLA) was recognized as another short term truce – and unlike the MOU, was given an explicit shelf live of five years after which discord was certain to continue (Cashore 1996).

Events unfolded as could be predicted based on short term strategic self interest. Following the SLA expiration at the end of March 2001, the CFLI immediately launched countervail proceedings and, after having five years to reflect on what to do, expanding their initial focus on stumpage rates (1983 and 1986), followed by an expansion to raw log export policy (1991) to now asserting that in addition to government subsidies, individual companies were engaging in "dumping" practices. It was a move that infuriated Canadian companies and government officials who were caught off guard. They were even more perplexed, given that British Columbia had undergone significant modifications and increases in its stumpage calculations, that the US Commerce Department's preliminary determination that a punitive tariff of 39.9 percent would be required to offset alleged subsidies of the Canadian softwood industry. Moreover, it preliminary ruled that an *additional* anti-dumping penalty of between 28 and 38 percent would be needed to compensate American lumber mills for Canadian wood exported to the US at below cost. This ruling would mean a maximum penalty of 77.9 percent. And in an apparent effort to reinforce that they meant business, the CFLI, undertook two unprecedented moves in the history of the 20-year old dispute. First, it sought a 'critical circumstances' ruling, which would see any imposed duties apply retroactively to the date of the launching of trade action.

The amount of the alleged subsidy caught virtually all other parties off guard. The Canadian trade minister, Pierre Pettigrew, claimed that the Americans had brought forward "absolutely ridiculously high (subsidy) allegations," and promised to *resist* the cases "vigorously." However, as with the CFLI, Canadian companies and their associations had not been sitting idly by to wait for the SLA to end. Now acutely aware that Congressional lobbying *did* matter, and believing strongly that previous lobbying efforts had distorted perceptions of Canadian forestry regulations, part of the Canadian forest products industry moved to increase, significantly, their interactions with consumer interests in the United States, particularly the Association of US Home Builders and the National Lumber and Building Materials dealers association. They also helped form and fund the organization, Americans for Affordable Homes. And, taking a lesson from the CFLI, the engaged the services of US trade experts. However, denoting a split between British Columbia on the one hand, whose interior companies were more likely to seek a compromise solution, and Alberta, Ontario and Quebec forest industries whose strategic interests lay in fending off such pressure, two associations emerged, with the Alberta, Ontario, Quebec companies forming the Free Trade Lumber Council. It was this group that undertook the bulk of coalition building with their US cousins.

The FTLC and Americans for Affordable Homes initiated academic studies that estimated the impact of the tariff on US consumers (Zhang) and compared environmental regulations in both countries (Cashore and Auld). These studies revealed a significantly different picture of each country's environmental forestry regulations than the story painted by the CFLI in the US Congress. Recognition that BC's share of the US market was dropping vis-à-vis the other three key provinces was important, as it gave the Free Trade Lumber Council, and non-BC provinces, more clout in influencing the federal government's position on the dispute. This in essence strengthened Canadian resolve not to enter into another compromise solution and to vigorously fend off US pressure. The strategy this time was two-pronged – initiation of yet another bi-national panel process (with Mexico joining what is now referred to as the North American Free Trade Agreement (NAFTA)), and the enlistment of the WTO's dispute settlement process. The WTO process which, unlike NAFTA, was not able to enforce an existing country's laws, relied instead on an internationally accepted definition of subsidy. The federal government reasoned that by prevailing at the WTO, it would once and for all obtain a ruling from the world's highest trading body about whether its policies constituted subsidies. Ironically, while the WTO can rule on an international definition of subsidy, it does not have the power to remand any country's decision, but instead gives the harmed country the power to impose punitive measures.

With the US allegations growing increasingly complex, and with Canadian interests making more links with US allied interests, and with resolution sought through both NAFTA and WTO, just what kind of

strategy any specific interests could make or undertake, and the long run implications of doing so, became increasingly difficult to ascertain.

At one point during these processes the federal government had, at the behest of Canadian companies, seemed to reach a tentative agreement with the US that would have seen another export tax imposed, but also the creation of a Canada-US Forestry Commission whose purpose would have been to address some of the underlying issues in an analytical, less heated light than usually took place when the dispute flared up. However, the deal fell apart at the eleventh hour, apparently owing to concerns voiced by the CFLI, which, as the complainant, must approve any compromise deal what would see them withdraw their complaint.

With the CFLI balking, all interests attempted to undertaken an array of converting strategies in the hopes of either fending off the others' pressure, or in the hopes of gaining the upper hand in any compromise agreement that might eventually arise. As a result, the NAFTA and WTO processes proceeded along separate but parallel tracks, with a range of rulings over a three year period providing all sides at various points to claim victory. However, as of early January a paradoxical climate existed when the NAFTA bi-national panel processes, after running their course, ultimately directing the US Commerce Department and the US ITA to revoke their findings of subsidy and injury, but with the WTO generally supporting the US countervail, although not all aspects of it. With mixed messages from the two different trade bodies (Gorte and Grimmett 2004), interests in Canada have been calling for the US to live up to its NAFTA treaty, refund all duties collected, and allow Canadian wood to again flow duty free into the United States. However, with the WTO more or less supporting the United States, the CFLI and US Trade Representative are stalling, arguing that international law is divided. And in a last ditch effort to either keep on converting BC and other provinces to their preferred option, or to give them the best possible footing for any compromise deal, the CFLI undertook two additional litigation efforts. It first convened an extraordinary challenge of the NAFTA panel decisions, arguing that the panelists overstepped their authority by creating policy, rather than ensuring it was properly administered. When the extraordinary panel ruled in Canada's favour, the CFLI took the next "converting" step, launching a constitutional challenge to NAFTA's Chapter 19th provision itself, arguing that its provisions contradicted the US constitution that only US lawmakers have the right to create US law.

Is there a strategic way out?

A historical analysis reveals mixed lessons from the dispute. On the one hand, British Columbia forestry officials have indeed attempted to address the stumpage issue, both in terms of increasing the cost of harvesting trees, and in terms of moving toward a more market-based system with which to determine stumpage rates. These efforts have in no way pacified or reduced pressure from the US Coalition for Fair Lumber Imports. Indeed, the Coalition has increasingly expanded its arguments to include raw log export restrictions, then dumping, all the while making questionable assertions (see above review) that BC's environmental forestry regulations were so low they amounted to additional indirect subsidies. Other analyses have also pointed out that the development of US trade law has encouraged administrative relief along side, ironically, the promotion of liberalized trade by the executive (Cashore 1997). Absent British Columbia privatizing its forestlands it appears highly unlikely that such scrutiny will ever completely end. However, we note that Canada and British Columbia could undertake proactive efforts to remove significant fuel from the softwood fire by enhancing learning about the underlying and tangential issues surrounding the dispute. This could be accomplished by creating an arena of analysis that all sides would accept as legitimate – such as the creation of a bi-national Canada-US Commission on Forestry. Such a commission could promote and sponsor research by scientists and scholars on questions of subsidy on both sides of the border, the role of raw log export restrictions employed on both sides of the boarder, the role of forest regulations versus financial incentives on both sides of the border, and so on.

The commission could also reorient professional foresters, the industry and environmental interests towards the role of North American forestry in the context of an increasingly globalized economy. For instance, as North American foresters (in Canada and the US) compete with countries in other parts of the world that grow trees faster and pay their workers a faction of the wages earned in North America, what might we expect to become of these forests? Will they eventually be converted to other non-forestry uses – something that environmental groups, industry, and other stakeholders would all universally oppose? While such a commission could not resolve the dispute completely, it might build a greater sense of shared interests. It also help to significantly reduce misunderstandings about Canadian forest practices in the US, such as the former President's well intentioned, but arguably highly uniformed argument that, unlike US forestry, Canadian forest practices needed to be singled out for their contribution to an array of US woes, including global warming (Carter 2001).

International/intergovernmental

Any analysis of British Columbia's role in international/intergovernmental deliberations necessarily requires primary attention to the activities of the Canadian federal government, which has constitutional jurisdiction over treaty negotiations and external relations. Canadian government officials and agencies in forestry related international forums and negotiations have a challenging task, as they must taken into consideration the views of key exporting provinces such as British Columbia, as well as the range of values of industry, environmental, community, labour, and others groups.

In making its evaluations the Canadian government must take into account the broader, and often unintended, effects that its own domestic policies have. For instance, forest economists and others have noted that increased environmental protections in North America may simply lead to increased forest degradation in less regulated developing countries (Perez-Garcia 1993). That is, without some sort of binding global agreement about these relationships, domestic policies could have perverse and unintended impacts. Recognition of this has led some to assert that regulations ought to be reduced, or relaxed in the US, Canada, and other industrialized nations, while others assert that the solution is a meaningful global agreement about sustainable forest management. For these reasons the Canadian must walk a policy tightrope – attempting to ensure that its efforts promote a healthy forest industry while simultaneously addressing environmental values that, owing to successful markets campaigns in Europe and elsewhere, have put Canada's forestry practices - especially those of British Columbia – in the international spotlight.

In the following segment of this paper we apply the framework to describe and assess Canada's role in global forestry policy deliberations, and the types of evaluations and interests that appear to have been brought to the table. We pay particular attention to whether Canada's positions reflect the "self interest" perspective assumed by much of the international relations literature, or whether notions of Canada as part of a broader global community with responsibility beyond its borders, might have also figured into its approach. Our analysis represents a qualitative assessment that we believe could position future, more in depth research needed to fully describe and understand these complex arenas.

We also note, following insights from the "neo-realist" school within international relations theory, that rational states do not only act based on their own perceived self interest, but also based on calculations of what they think other countries might do. The assessment of motive, furthermore, is embedded in longer-term relationships, involving a history of previous interactions as well the anticipation of future diplomatic relations. As a host of international relations scholarship has argued, these relationship "games" can go in two directions – with each side struggling for individual advantage, or it can involve openness, trust building and commitment to win win solutions (Risse 2000). It is up to the global community to determine which side of this strategic spectrum is more likely to foster sustained efforts focused firstly on the global-scale problems themselves.

Overall, it is widely agreed that the issues of global trade and security have dominated the global governance arena. This dominance is reflected in international law, with the strongest language devoted to the promotion of free trade and the protection of national sovereignty (Sands 2003; Bernstein 2002) and has led to rather ineffective environmental policy regimes (Speth 2004; Young 1999) and has led others to bring environmental concerns into trade agendas (Esty 1994). A primary tension in global politics, furthermore, has been centered along a North/South split regarding the sovereign right of Southern countries to economic development enjoyed by the North (Porter, Janet Brown, and Chasek 2000), and the exchange of resources to compensate for any externally opposed obstacles to that development. These issues, as we will see, re-emerge continuously in environmental negotiations forming seemingly intractable barriers to widespread consensus.

Initial attempts at global environmental agreements emerged in the 1970s, around the time of the first UN Conference on Environment and Development. These early agreements include, for example, the Ramsar Convention on Wetlands, the World Heritage Convention (WHC), and the Convention on International Trade in Endangered Species (CITES). All of these conventions were relatively narrow in focus, emphasizing the listing and protection of globally significant sites and species. Furthermore, they were given limited priority and little license to infringe on the development of global production and consumption. At the same time, economic burdens resulting from these treaties were felt more keenly in the Southern Hemisphere. The lack of measures to address North/South inequalities fueled long-term Southern resentments (Sands 2003: 8).

V. Intergovernmental forest negotiations

Intergovernmental forest negotiations over forestry have followed a complex and diffuse path. In 1985 the International Tropical Timber Organization (ITTO) (Gale 1998) was launched with a mandate to promote global trade in tropical timber products and while primarily focused on trade, also incorporated the conservation of tropical forests into its organizational mandate. Whether a forest agreement centered around trade is suited to address environmental threats to tropical forests has been debated by environmental groups, who argue that such an approach acquiesces to timber interests while resisting calls from environmental groups for a more prescriptive approach (Dauvergne 1997, 2001). Critiques argue that even if accompanied by tough rules, the fact that approximately 6% of tropical non-coniferous roundwood is sold for export limits any impact that trade-based rules might have. Environmental groups and forest policy scholars have, in turn, noted that key underlying drivers of tropical forest degradation and deforestation are not owing solely to timber trade but also to a diversity of cross-sectoral issues such as the expansion of permanent agriculture and cattle ranching [Geist, 2002 #4848]. Thus, this early exclusive focus on tropical forests and international trade led environmental groups and their allies to call for greatly increased global commitment to resolving global forestry challenges and for working hard to establish a Global Forest Convention, which they hoped would be agreed to at the 1992 Rio Earth Summit.

The Rio Summit in 1992 captured the world's attention, and fueled the rising popularity of "sustainable management" and embracing "liberal environmentalism" (Bernstein 2002) as the key to a win win marriage between environment and development interests. In the language of sustainability, environmental protection is considered intimately connected with long-term economic prosperity and the well-being of the planet as a whole. This perspective in which strategic actors attempted to find, or at least attempted to uncover, innovative "win win" solutions, led to a number of global statements produced in Rio, including Agenda 21, the Rio Declaration on Environment and Development, and the Statement of Principles for the Sustainable Management of Forests. However, the failure of the world's nations to agree to a binding global forest convention, of which Canada was a champion, led environmental groups to feel that governments had "acquiesced" to an industry agenda, largely "fending off" their calls for increased and meaningful environmental commitments.

Indeed, where agreements were reached, they very much fit within a "neo liberal" win win approach, such as the Framework Convention on Climate Change (UNFFCCC), which paved the way for market-based efforts to reduce human caused greenhouse gases (Although 13 years later the UNFCCC, through its Kyoto Protocol, has only managed to develop very moderate commitments without the participation of the United States). Other conventions passed at Rio include the Convention on Biodiversity (CBD), and the Convention to Combat Desertification (UNCCD).

The failure to sign a global forest convention resulted in two distinct pathways. One path has been to by-pass governments altogether and harness the power of the market-place to create economic incentives for environmental reform, discussed in detail in the forest certification section below. The other has been the development of mostly voluntary regional-level processes. Such regional processes include the creation of region-specific Criteria and Indicators for sustainable forest management. They also include issue-specific measures such as the Forest Law and Governance (FLEG) processes aimed expressly at the problem of illegal logging.

Considering this global progression thus far, what can we say about human strategies overall? It is perhaps fair to say that, taken together, the community of nations has undertaken, collectively, "seat of the pants" evaluations with the specific responses best characterized as profoundly resistant. As Humphreys has summarized, "The result has been a creeping *ad hoc* incrementalism. The international forests is multicentric; it has developed at different speeds in different fora, rather than strategically and holistically." However, if we scratch further beneath the surface, we would find a complex array of actors, including government, industry and NGOs together pursuing a wide range of strategies that in sum total provide countless lessons and clues pointing the way forward.

These next sections are an attempt to help uncover those clues. We will do so first by analyzing the actions of countries and interest groups around the issue of a global forest strategy and/or legally binding instrument. We will then tackle recent strategies to address illegal logging and the associated, issue-specific FLEG processes. Finally, we will address the issue of climate change negotiations, one of the most high-stakes environmental challenges facing us today.

The following analyses, with exception of the analysis on climate change, will be focused on actor strategies specifically aimed at influencing inter-governmental negotiations. It is not intended as a comprehensive review, which is beyond this scope of this paper, of all private sector, domestic, bi-lateral and multi-lateral strategies aimed directly at addressing the substantive problems at hand, nor other strategies occurring outside of the negotiating processes discussed. ENGOs, forestry firms, and governments have engaged in a plethora of specific projects designated to promote forest health, prevent illegal logging, etc. We do, however, provide some discussion of individual strategies in the case of climate change, since it is an area somewhat substantively independent of the other forest management issues covered more thoroughly in this report.

Canada's efforts to develop a global forest code

Governments world-wide have been engaged in inclusive, consensus-based global forest negotiation processes for over a decade. While these negotiations have opened new international channels of communication and learning, they have yet to deliver commitments to on-the-ground action. Meanwhile, as already discussed, the extent, health and productivity of the world's forests continue on a steep downward decline. Long-standing points of international conflict, centering around issues of national sovereignty in which nation states' individual efforts to seek relative and absolute economic gains largely explain the lack of progress on environmental problems.

While the roots of the problem can be traced far back in history, we will start here with the 1992 Earth Summit in Rio as a pivotal point in history when world attention was drawn beyond tropical forests to include the Northern Hemisphere. With the spotlight moving their way, developed countries came to Rio with a proposal to establish a global forest convention. Proponents of a convention argued that the world's forests are a "global commons" (Humphreys forthcoming; Porter, Brown, and Chasek 2000), in which all world citizens shared an interest and hence no party could claim exclusive rights. Collective action, they argued, was required to address global forest concerns. Reflecting on our classification framework describe above, we discern two very different accounts for the support of a global forest convention at this time by most developed countries and Northern NGOs. One account would see this as representing rational strategic calculations in which governments and industry seek to impose rules on the South equal to what their domestic policies already required, hence increasing their economic development prospects by enhancing environmental protection in competitor counties. Similarly, environmental group efforts to influence forest management in developing countries, where poor governmental capacity and resources made previous efforts difficult, would also fit this type of strategic organizational self interested decision-making processes. However, another explanation is that the Northern countries supported a global forest convention because they evaluated global environmental deterioration as a concern that required addressing not through the lens of their country's self interest, but through their role as a community of nations that together had permitted, indeed encouraged in some places, ongoing degradation of key global forest resources. We review in detail the unfolding of events in order to assess the explanatory power of these different accounts.

Whatever the motive, the call of the North for collective action on forests did appear to most countries from the South as a self-interested exercise in pointing their fingers elsewhere, since the world's most threatened forests are located in the tropics. Tropical developing countries, therefore, could expect to bear the brunt of the costs of implementing any global forest agreement. Perhaps even more important was the South's historically rooted suspicion that environmental agreements were simply another ploy for asserting Northern control over Southern resources. Not surprisingly, therefore, the convention debate initially split along North/South lines. The G77 group of developing countries, led by Malaysia and India, embedded their objections in international law protecting the sovereign right of nations to their territories and the natural resources within them. Furthermore, the G77 pronounced their unwillingness to consider a convention without due financial and technical support and compensation.

It is interesting to note, furthermore, the intersection of other ongoing environmental negotiations with the forest debates, demonstrating the constant spillover effect of conflicting relations. For example, India's strong resistance to a forest convention has been attributed to concerns that such a convention was simply a ploy to avoid cuts in greenhouse gas emissions through Northern investments in tropical forests as carbon sinks (Chaytor 2001).

Despite these initial convert/resist dynamics between developed and developing countries, the Rio Summit did manage to produce the first pieces of international soft law on forests. This law is contained in Chapter 11 "Combating Deforestation" of Agenda 21 and in the Statement of Principles for the Sustainable Management of Forests. Agreement was reached by avoiding all reference to global forest management guidelines and sustainable forest trade, and by recognizing the sovereign right of nations to deforest their territories (Porter, Brown, and Chasek 2000).

Abbott and Snidal define international "soft law" as agreements that are weak in obligation, precision, and/or delegation (Abbott and Snidal 2000). Soft law is commonly the result of the intersection of one party's strongly held interests and/or values with another party's differing concerns, resulting in compromise. There is a great deal of debate surrounding the effectiveness of soft law in inspiring cooperation. Nevertheless, it is by far the most common form of international agreement and, judging from the intense debates it generates, it is of political significance at the least.

In terms of the end goal of forest conservation, however, agendas and statements mean little if they are not followed by some kind of like-minded action. For several years after Rio, various country parties continued to work together to keep the forest dialogue alive and presumably operationalize the goals put forward in Rio. Canada was among the more active parties in this regard, soon emerging as a leader of the forest convention movement. In response to the impasse at Rio, Canada engaged in bilateral dialogue with Malaysia, and together the two countries agreed to sponsor an Intergovernmental Working Group on Forests. The stated goal of the Working Group was to improve communications between the North and South and break the impasse on global forest dialogue by creating a space for more informal discussions outside of the politically charged atmosphere of formal negotiations.

This country-led initiative did play a pivotal role in breaking the North/South battle lines. In the process of dialogue, Canada and Malaysia uncovered commonly held interests and the potential for a win-win scenario. This, together with changes in composition of Malaysian negotiating parties, led Malaysia to shift its position from adamant opponent of a convention to one of its strong supporters. Another key outcome of the Canada-Malaysia Working Group was the recommendation to continue discussions within the UN structure, by establishing a sub-group of the newly formed Commission on Sustainable Development (CSD). With support from the EU, and a lack of opposition from developing countries and NGOs, the end result was the creation of the Intergovernmental Panel on Forests (IPF) to be housed under the CSD.

So, from the perspective of this paper's analytical framework, does this Canadian-Malaysian interaction constitute a successful example of win win innovation at the far end of the response continuum? It was certainly strategic, but is it an example of short-, or long-term thinking? In order to answer these questions, it is necessary to take a step back in perspective and consider whether 1) there is evidence that a broad set of interests has been considered and 2) there is evidence of long-term thinking regarding global forest impacts. Certain clues, thus, emerge. Canada and Malaysia are two countries with powerful forest industries that are heavily dependent on external trade and support. Canada is the world's largest exporter of forest products and Malaysia is a dominant force in the Asian forest products market, with heavy industry investments throughout the region. Thus, for the two countries to perceive a win win outcome from a global forest convention does not, in itself, reveal that they were taking broad-based strategies in terms of their membership in the global community. Instead, it could be explained by the desire to enact globally standardized forest management requirements that could guarantee open access to global markets without unduly constraining current industry practices. Recognition of these dynamics leads us to reflect in the conclusion of this paper about those cases when purely self-interest strategic behavior may lead to cooperative and long term outcomes, versus those cases where they lead to a classic "tragedy of the commons" (Hardin 1968) (Gibson, McKean, and Ostrom 2000). Similarly, the same kind of classic self interest strategic thinking could explain the behavior of other key parties to the convention debate. As a result of various international dialogues, intergovernmental initiatives, as well as political shifts at the domestic level by 1995 Malaysia, Indonesia, the Philippines, Russia, Papua New Guinea and Costa Rica, had joined Canada and the EU in supporting a legally binding forest convention. Many of these developing country supporters had indicated interest in further access to development assistance (Chaytor 2001).

Meanwhile, the US, Japan, Brazil, Venezuela, Columbia, Peru, Australia, and New Zealand had turned against the idea of a forest convention. The US, a leader in this opposing coalition, had undergone a change in political leadership to a conservative Republican government generally opposed to the ratification of legally binding environmental treaties. Furthermore, the US, Japan and Brazil, as leading regional powers in opposition to a convention, are also countries with a strong domestic forest economy and relatively little reliance on export markets. Hence, the fact that these countries chose to oppose a forest convention is at least not inconsistent with their short-term interests.[21]

It is possible, however, that environmental issues did stand high on the agenda of some countries. In 1997 the UK and Sweden decided to break from the convention coalition, purportedly out of concern about a lame duck convention (Porter, Brown, and Chasek 2000). This move could be equally well explained as a short-term or a long-term decision-making approach. In the case of the UK, the lack of significant forest products industry and domestic pressure for sustainable timber sources might provide short-term incentives to oppose a forest convention if it was deemed to be ineffective. Sweden, in contrast, did support a substantial export-oriented forest economy. Hence Sweden's break from the forest convention could be explained either by a different short-term economic calculus than that of other major exporting countries, or by longer term thinking about global sustainability. In terms of the interests and strategies of forest industry actors, these generally appear to have matched those of their government delegates, at least in countries with a strong forestry sector. For example, the Canadian Pulp and Paper Association officially voiced its support of a forest convention to the IPF (ENB 1997).

These general assessments of country and industry motives, in fact, match precisely those of the majority of leading international NGOs. The aligning of Canada, Malaysia and other large forest product exporters in a support of a convention rendered the convention idea highly suspect. As a result, the bulk of international NGOs joined forces in opposition to a forest convention, including Greenpeace International, Friends of the Earth, World Rainforest Movement and the World Wide Fund for Nature (WWF). There was a strong sense among these NGOs that participating governments were driven more by the will to protect their prospective economic interests, than to develop an environmentally and socially progressive forest instrument that would push the envelope on forestry reform.

A primary strategy of the ENGOs, when faced with inter-governmental negotiations seemingly high jacked by economic interests, was to bypass governments altogether and focus directly on market reform. To this end, as we detail in the next section on private authority, the Forest Stewardship Council (FSC) was formed in 1993 as an entirely independent governance institution with an internal decision-making structure designed to ensure a dominant ENGO voice. Forest certification, and/or some other form of environmental product labeling, was an idea that ENGOs had been pushing within the ITTO and other international arenas for a number of years. The creation of the FSC outside of these governmental processes quickly propelled this idea from paper to reality. As such, it represents one of the most innovative actions undertaken by any of the forestry interests addressed in this paper. An analysis of actor strategies regarding forest certification, and the degree to which forest certification represents a truly "win win" innovation, will be detailed further along in this paper.

Although international ENGOs largely abandoned hope of major progress in intergovernmental forestry forums, they did not cease to participate in the dialogue. This participation was, of course, significantly constrained by their lack of clientele relations with government authorities. Furthermore, some have argued that the progressive formalization and institutionalization of intergovernmental forest processes has served to further reduce meaningful ENGO participation (Eastwood 2005). Nevertheless, the actions of ENGOs in the IPF and subsequent bodies did exert a significant influence on the language of international soft law on forests.

Specifically, environmental and social NGOs have supported text addressing the negative impacts of industrial development and the importance of local community participation in forestry decision-making. It was in part through the urging of NGOs that Chapter 11 of Agenda 21 and the Forest Principles contained language on the importance of indigenous peoples and traditional forest-related knowledge (TFRK). The inclusion of such language has been attributed to the strategic alliance of NGO interests with indigenous and local rights groups as well as with G77 developing countries. G77 country motives in this case, have been linked with their desire to capture the benefits from global exploitation of their genetic resources (Humphreys forthcoming). NGOs also share an interest with local rights groups in limiting the power that transnational corporations hold over forest resources. The strength and lasting

power of these alliances, of course, depends on the degree to which they involve long-term commitments rather than short-term marriages of convenience.

In addition to NGO input in the Rio declarations, the fruits of similar NGO strategies can also be identified in the only other body of soft law text to have been produced by these global forest negotiations, i.e. the IPF and International Forum on Forests (IFF) Proposals for Action. The major output of the IPF, and its successor process the IFF was the set of over 270 Proposals for Action to address global forest problems. These Proposals for Action include a broad diversity of laudable intentions, but their complex and sometimes contradictory nature reflects the processes from which they originated. Perhaps one of the most fundamental of these tensions is that between the neo-liberal support of economic growth and trade and the promotion of non-industrial forest uses and public and community participation in forest governance. The latter promotion of non-industrial interests can be attributed in large part to NGO and developing country alliances. According to Humphreys, the two specific contributions largely attributable to ENGOs are the inclusion of text supporting traditional forest related knowledge (TFRK) and proposals to identify and address the underlying causes of deforestation (Humphreys forthcoming).

In terms of taking action on the IPF/IFF Proposals for Action, only a few voluntary initiatives have been implemented on a widespread basis over the past decade. These include ten different regional, inter-governmental Criteria and Indicator processes, involving consensus based agreements on the essential components of sustainable forest management. They also include the development of National Forest Programmes, whereby individual countries establish their own goals and objectives within their sovereign territories.

The Proposals for Action, however have failed to produce a single commitment to on-the-ground action. A central sticking point continues to be the issue of North/South finance and technical support. From the inception of the global forest dialogue to the present day, overseas development aid (ODA) has continued to decline (UNFF 2002; Molnar 2005). Northern countries, meanwhile, have resisted all developing country attempts to obtain financial commitments in exchange for forestry reform. Instead, developed countries have deferred the issue of North/South finance to international institutions and the private sector. This begs one to speculate that if even a small fraction of the energy and resources that have been spent on country strategies to defend their own economic interests had been devoted to addressing this most central of global challenges, considerably more progress might have been made. This is perhaps the real tragedy of the global forest commons, where the rational choices of individual countries in pursuing their self-interest leads to collectively irrational behavior to the loss of all concerned.

Despite a growing consensus among all parties that inadequate progress was being made in implementing the IPF/IFF Proposals for Action, these parties have shown a continued persistence to continue their global dialogue. In 2000 the global forestry forum was promoted to a higher status within the UN structure. The new forum was named the United Nations Forum of Forests (UNFF), located under the UN Economic and Social Council. A year later, a new Collaborative Partnership on Forests was formed consisting of fourteen major forest-related international organizations, institutions and convention secretariats that were to support the UNFF and facilitate international cooperation on forest-related efforts. The UNFF and the Collaborative Partnership on Forests, which together are referred to as the International Arrangement, constituted a more permanent, higher priority platform for the global forestry negotiations. Unfortunately, this promotion was not enough to catalyze measurable progress.

The UNFF was launched with a five year plan of action, finishing in May 2005 on a note of frustration and disappointment according to many of its participants. UNFF's fifth annual session, known as UNFF 5, was to mark the conclusion of the UNFF's original mandate with a "review of the effectiveness of the international arrangement on forests", consideration of future actions, and the responsibility to "consider…the parameters of a mandate for developing a legal framework on all types of forests (UNFF

2001). The session started off with a strong leading volley from European delegates, supported by Canada, demanding "a set of policy commitments and…quantifiable and time-bound global goals and targets" (ENB 2005: 14). Canada also reiterated its desire for a legal forest instrument that would, among other things, be performance-based, utilize regional processes, include a voluntary review mechanism based on national commitments, and incorporate a voluntary code of conduct. (ENB 2005: 4).

A persistent problem, however, in interpreting the above positions is that as long as discussions remain mired around procedural issues, it is impossible to know the substantive extent of party's willingness to commit. Without getting to the point of substantive discussion, for example, it is unclear whether or not Canada's proposal represents a willingness to accept an international agreement that would significantly affect forest practices within its own borders. This lack of clarity, furthermore, constitutes a risk to ENGOs and other interests with limited influence. This risk, furthermore, has sustained the ENGOs' long-term opposition to a legally binding forest instrument.

Meanwhile, Brazil and the US echoed their own historical positions yet again in UNFF 5, refusing to agree to specific policy commitments or quantifiable global targets. However, Brazil did make a gesture of good faith that is of significant symbolic importance. This gesture was to break from its historical position by accepting a global goal to reverse forest loss. This acceptance, however, was predicated on the condition that the goal must be devoid of any substantive commitments.

The key innovation introduced during UNFF 5 was the proposal for a global forest code as a means to escape the deadlock. Brazil rejected a code in any form, voluntary or otherwise, and the US would only accept a general "statement of commitment" (ENB 2005: 14).

Meanwhile, developing countries continued to raise the issue of the North/South transfer of resources, proposing the creation of a Global Forest Fund. Developed countries flatly declined to create such a fund. Instead, Northern countries once again deferred funding responsibilities to international institutions and the private sector.

In sum, country delegates to UNFF 5 were largely reiterating positions that have changed remarkably little since the inception of IPF 1. Essentially admitting defeat, delegates agreed to end the session early on the final day with the reluctant decision to continue discussion at UNFF 6 the following February 2006.

While widely touted as a failure, UNFF 5 did produce a set of global goals subject to further refinement and discussion. These goals included: 1) reverse the loss of forest cover; 2) enhance forest-based benefits and achievement of the Millennium Development Goals; 3) increase significantly the area of protected forests and proportion of trade in sustainable forest products; and 4) reverse the decline in overseas development assistance (ODA) for SFM. Delegates agreed to achieving these goals through voluntary national measures and the voluntary submission of national reports to UNFF. The global goals are laudable as general statements of intent. However, they mean little without further elaboration. Furthermore, any measures taken to achieve these goals would disproportionately impact developing countries. It is perhaps ironic, therefore, that developed countries would push for the imposition of quantifiable targets and then delegate the responsibility of finance to private parties and/or other institutions not present at the negotiating table.

The IPF, followed by the IFF, and finally the UNFF have all involved sustained attempts to address substantive issues and priorities and then concluded with the realization that no binding decisions could be reached and yet another discussion forum must be established. This redundant tale of storm and fury has led some theorists to propose that the endless debate over a global forest convention is actually a ploy allowing governments to display concern for global forest health while doing nothing about it. The actors

in this tale are simply hiding behind the normative vale of sustainable forest management and global collaboration as feel good terms conveying legitimacy while maintaining the status quo (Dimitrov 2005).

Assuming that motive does in fact exist to move forward, the negotiation literature (Fisher, Ury, and Patton 1991; Forester 1989)(etc.) addresses the necessity of peeling back layers of strategic positioning, alliances and pressure politics, and of identifying the key interests that drive (or at least legitimize) the process. At their most basic, these include the slowing of ecosystem degradation and the promotion of the socio-economic welfare of developing countries. The success of global negotiations on forests relies, by definition, on reaching these ends. Should the motives exist to address these problems, then past lessons from similar negotiating processes suggest numerous useful tools for doing so (Sand 2001; Rametsteiner 2004)(etc.). Otherwise, it is highly predictable that the interests of global trade will simply outweigh the environmental and social concerns (Paterson, Humphries, and Pettiford 2003), i.e. the very concerns that have been voiced to legitimize the existence of a global forest convention and/or dialogue.

Clearly the interests (however articulated) of the most powerful countries have played a central role in shaping the actions and responses of the actors involved. At the government level, US and Brazilian opposition to a global convention carries profoundly greater weight than might the position of Burkina Faso, for example. Even given the UN emphasis on consensus, less powerful nations require a larger number of allies than stronger nations to risk opposing the most powerful interests. While such power imbalances are relatively intractable, the structure of the negotiating process can influence their impact. Among the most dramatic example of this is the case of the Forest Stewardship Council which has succeeded in empowering NGOs and excluding governments altogether. Even within intergovernmental negotiating processes, there is significant structural variation, such as differences in the government ministries involved (i.e. environment ministers versus ministers of trade and finance), and differences in the ways that NGOs and other non-governmental actors are allowed to participate.

These structural issues, among other things, have encouraged speculation regarding the ability of other forest-related instruments to achieve greater success in coordinating multilateral action on forestry. There have been a number of comparative analyses of global and regional instruments that have attempted to capture substantive gaps and overlaps in international hard and soft law related to forests and/or have analyzed the role of decision-making structure in facilitating progress (Chaytor 2001; RFI 1998; Rametsteiner 2004; Ruis 2001; Tarasofsky 1999; UNFF 1998). One common conclusion is that more attention and effort should be placed in regional initiatives tailored to the needs and concerns of regional forestry interests. In addition, numerous arguments have been made for more inclusive processes allowing more meaningful participation by civil society (Eastwood 2005; Sanwal 2004). The Convention on Biological Diversity (CBD) has, in fact, demonstrated some success in incorporating public input. The CBD's relatively inclusive reputation, together with its emphasis on environmental values and the sharing of benefits from genetic resources, has led some (including some developing country parties) to argue that a protocol to the CBD is the appropriate vehicle for developing legally binding forest directives (Ruis 2001; Humphreys forthcoming; Tarasofsky 1999). ENGO support for this approach, however, has rendered it suspect to more industry-oriented parties, resulting in yet more actions and reactions and stalling any conclusive decision.

Meanwhile, while the IPF/IFF/UNFF processes have been unable to unite global actors in developing a cohesive strategy for promoting sustainable forest management, a growing number of other multi-lateral instruments have attempted to identify and address various pieces of the forest conservation puzzle. The

figure below charts the growth of multi-lateral environmental agreements, many of which relate to forestry. The result of this growth without a holistic vision to guide it, has been a rapid decentralization and fragmentation of global action on forests.

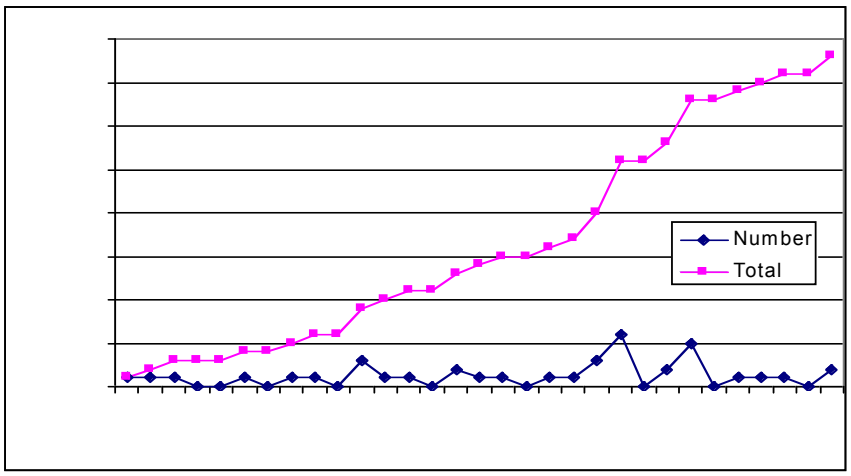

Figure Core environmental conventions and related agreements of global significance

Source: UNEP, 2001, International Environmental Governance: Multilateral Environmental Agreements, United Nations Environment Programme, UNEP/IGM/1/INF/3.

While the structure, size, inclusiveness and cohesion of global forestry negotiations do undoubtedly influence the internal decision-making calculus of the negotiators and their response to outside pressure, the primary focus of this section's analysis has not been on these procedural questions. Instead, our analysis has focused on the means by which different parties to the dialogue have acted and reacted to each other within one particular negotiating arena. This analysis, in sum, has revealed major investments in dialogue, alliance-building and normative pronouncements coupled with a complete failure of the parties to address each other's collective interests.

The cure for reorienting strategic actors towards addressing forests as truly "global commons" may require more than simply longer term, more innovative problem-solving. Within the forest debate, embedded in the chess-like game of anticipating motives, is an overall lack of faith in the sincerity of negotiating parties. The responses of different parties, in other words, are more than just the outcomes of strategic probability estimates based on assessments of issue-specific interests. Rather, these responses may also be explained by the overall presence or absence of a foundation of sincerity and trust. If this is so, then a sustainable strategy for overcoming conflict may require more than clever negotiating and even win win innovation, but rather a shift in party norms towards a more community- and environment-focused vision. In other words, sincere commitment to the environmental and social ends of a global forest agreement, and trust that such commitment is shared (Habermas 1981) (Risse 2000), may in fact be needed as much or more than the consideration of long-term self-interest and creative entrepreneurship.

Illegal logging

Identifying the problem

The illegal harvest of timber, ranging from timber theft to corrupt government practices, is a global problem of epic environmental, social and economic proportions. It can be traced at its root to a lopsided

global economy involving rapidly increasing and uneven resource consumption coupled with governance structures ill-equipped to moderate the impacts of global trade. Illegal logging is a problem in virtually every country worldwide but is by far the most pronounced in the Southern Hemisphere. As such, it presents a major opportunity for long term North/South collaboration to address global environmental degradation and poverty. It presents an equally major temptation for Northern exploitation to suit short-term economic interests. This diversity of incentives has helped to put the issue on the global governance map; however, it has also created numerous pitfalls that only long-term vision may overcome.

The policy section of this paper clearly illustrates that the most formidable barriers to sustainable forest management in many developing countries cannot be attributed to a lack of prescriptive environmental policies. To the contrary, developing countries have adopted some of the world's most restrictive forest practice regulations, from prescriptive environmental policies with high environmental threshold requirements to, in some cases, a total ban on logging in natural forests. The problem instead involves a whole host of interrelated legal challenges that overcome government capacity and/or will to practice consistent and equitable enforcement.

There is no globally accepted definition of the term "illegal logging." This lack of definition is due in part to the complex and sometimes contradictory nature of rules and regulations that govern the harvest, processing and trade of timber. A most basic of legal challenges is unresolved forest and land tenure rights. Disputes over land tenure are common in many forested areas and create legal ambiguity over timber harvesting rights. On publicly owned lands, a major source of illegality lies in the fraudulent and corrupt distribution of logging concessions. Outright forest theft is the practice most consistently associated with illegal logging. Theft may occur either inside or outside of legal harvest boundaries, and include unsanctioned logging in protected areas such as riparian zones. In addition to illegalities associated directly with harvest, laws may be violated in the transport, processing and or trade in harvested forest products. Likewise, illicit accounting practices are common in some developing countries, including the use of transfer pricing to avoid full payment of taxes (FAO 2001).

This lack of a standardized definition of illegal logging, together with a lack of recorded data, makes it very difficult to determine its precise extent. Nevertheless, the very rough estimates that do exist tell a compelling story.

Estimates of illegal wood harvest for a number of developing countries range from 50% to 90% of the total harvest. The table below provides specific percentages for some key countries in different world regions.

Country	Estimated % of wood harvested illegally
Bolivia	80
Brazilian Amazon	85
Cambodia	90
Cameroon	50
Colombia	42
Ghana	34
Indonesia	51
Myanmar	80
Russia	20-50

Source: ITTO Tropical Forest Update. 2002. Vol. 12, No.1. The ITTO data is based on a wide range of sources employing different measurement methodologies.

The impacts of these illegal activities, however, extend well beyond the boundaries of individual countries. The World Bank has estimated that the illegal timber trade has resulted in a collective loss of US $10 billion to the global marketplace, as well as losses of government revenue totaling US $5 billion (World Bank 2005). While illegal logging is most prevalent in developing countries, developed countries also suffer economic loss from illegal forest practices within their own borders. For example, a study by the Royal Canadian Mounted Police estimated that Canada loses C$500 million and British Columbia C$200-320 million dollars annually to timber theft and fraud (Weatherbe 1998).

The environmental and social impacts of illegal logging are arguably yet more profound than its impacts on industry and government revenues. Illegal logging plays a critical role in tropical deforestation, forest degradation, and the resulting loss of forest productivity and biodiversity. Its damaging impact occurs both directly through irresponsible logging practices as well as indirectly through diverse means such as the opening of forest frontiers to resource exploitation and land use conversion. From a social perspective, illegal logging robs local forest dependent communities of their livelihood and contributes to a range of social ills from abusive labour practices to enslavement and violence.

Actors and strategies

While Canada played a lead role in the forest convention debate, it was the United States that first led the charge against illegal logging. The impetus for US interest can be attributed to both the forest industry and ENGO collective, each of which had its own distinct reasons to press for government action.

The AF&PA has for many years been voicing its concern that illegal logging was driving down market prices for wood products. A recent AF&PA commissioned study backs these concerns. The study estimated that illegal production accounts for about 5-10% of global industrial roundwood production and roughly 12-17% of international roundwood trade. Furthermore, the study found that illegal logging leads

to an average loss of 7-16% in the global market value of a variety of wood products. On a more qualitative, but nevertheless economically significant level, it was observed that illegal forest industry activities contribute to public distrust in the industry as a whole (Seneca Creek Associates and Wood Resources International 2004).

ENGOs, in contrast, have focused attention on the growing environmental and social impacts of illegal forestry. In the 1990s many ENGOs focused their attention on forest certification as an innovative tool for addressing the problem. However, by the new millennium it had become clear that certification alone was inadequate to resolve a challenge of this magnitude.

It was the ENGOs, in fact, that were credited as the outside catalyst of US intergovernmental action. Specifically, a group of ENGOs approached a US delegate with a request to include text on illegal logging in the IPF Proposals for Action. The US delegate agreed to forward this proposal for inter-governmental consideration. After initial objections by developing countries, agreement was reached by linking mention of illegal logging with financial and technical assistance to the South. The resulting Proposals for Action constitute the first piece of global text on illegal logging (McAlpine 2003). Exactly what was the US's primary motive, however, and what scope of vision this implies, can best be surmised by examining subsequent US actions.

The IPF's inclusion of text, in fact, has yet to be followed by international agreements for on-the-ground action. Instead, the issue has stalled along with the rest of the global forest negotiations. This stalling could indicate initial seat-of-the pants thinking, i.e. declarations without concerted thought as to how they could be fulfilled. Alternatively, it could be explained as a more short-term strategic move to appear acquiescent to societal demands without taking any concrete action.

Regardless of the reason for this lack of progress, the United States demonstrated sustained commitment to keeping the dialogue alive. In addition to approaching the UNFF, ITTO and the CBD without notable success, the US began to pursue alternative strategies (McAlpine 2003). In 1998, the United States together with the United Kingdom spearheaded the development of a G8 "Action Programme on Forests." Illegal logging was included as one of the Programme's five focal areas. At that point it was yet too early to tell precisely what motives were most dominant in driving these G8 countries to issue statements on illegal logging. This could signal anything from a long-term vision to promote forest conservation to a desire to weigh in on an issue of civil concern with little political obligation or risk. Not many, one could argue, are likely to criticize statements against illegal logging.

Several years later however, the US and the UK took further steps to indicate their genuine political commitment. Partnering with Indonesia and the World Bank, they sponsored a new regional process focused entirely on illegal logging, known as the East Asia Forest Law Enforcement and Governance (FLEG) process. This process, launched in 2001, began with a high level Ministerial meeting, with international organizations, NGOs and the private sector also invited to attend. The result was a Ministerial declaration signed by twelve countries, including the developed countries of the US, UK and Japan, along with seven Asian and two African developing countries. Canada, New Zealand, and Papua New Guinea did not attend the first meeting but later sent representatives to participate in the subsequent East Asia and Pacific FLEG regional task force.

A year after the East Asia FLEG process was launched, France, the UK, the US and the EU Commission partnered with the World Bank to initiate a similar process in Africa, known as the Africa FLEG. The Africa FLEG followed a procedure similar to the East Asia FLEG, producing a Ministerial Statement in 2003. Developed country participation in Africa FLEG included the US, Canada, New Zealand, the UK, Switzerland, Germany, France, Belgium and Italy, along with 30 African countries.

In terms of government strategies, these FLEG processes indicate political interest in non-binding region-specific approaches. While perhaps providing a useful venue for dialogue, clearly such steps are not by themselves adequate to address the monumental and systemic challenge of Southern forest governance.

Meanwhile while these FLEG processes were in development, the industry associations were also making parallel global statements. In 2002 the International Council of Forest and Paper Associations (ICFP) released a public statement on illegal logging. This statement was adopted soon thereafter by the Forest Products Association of Canada, the American Pulp and Paper Association, the Pan-European Forest Certification Council (PEFC) and other industry and trade groups (Guertin 2003). Again, while such denouncements are perhaps non-objectionable, they can be driven by a wide range of motives from short-term economics to much longer-term perspectives. The actions that follow from these statements most certainly speak louder than words.

The next new strategic impetus came from Europe, this time quite independently of US support. Once again, ENGOs were actively involved in raising awareness regarding the environmental causes and consequences of illegal logging. A common premise of ENGO argument was that in order to effectively address illegal logging it was as necessary to address Northern consumption, i.e. the demand side of illegal trade, as it was to restrict the supply side. Urging action on market demand, a statement released by FERN and other ENGOs estimated that 50% of the EU's imports from tropical forests and 20% from boreal forests might be traced to illegal sources (FERN 2002). While these figures would vary depending on an individual country's primary sources of tropical timber, the problem is certainly not confined to Europe. For example, figures compiled by the Brazilian Trade Ministry show the US as the largest importer of Amazonian wood products, accounting for 28% of the total dollar value of timber products exports (Greenpeace 2003). If roughly 85% of the Amazonian wood products trade is illegal, then without relevant precautions the US provides ample demand for illegal Brazilian wood.

Regardless of the widespread nature of the trade in illegal wood products, the EU has set itself apart from other world regions by choosing to engage a broad range of stakeholders, including ENGOs, governments and the private sector, in addressing indiscriminate market demand for tropical timber. The UK government appointed a research institute, now known as Chatham House, to develop recommendations for an EU action plan on wood product imports. In broad consultation and collaboration with stakeholders such as FERN, Chatham House proposed the creation of a new system of "voluntary partnership agreements" (Humphreys forthcoming). The idea was then adopted by the EU in 2003 as part of a new Forest Law Enforcement, Governance and Trade (FLEGT) action plan. These voluntary partnership agreements involved bilateral negotiations between producer countries and EU members in the development of legality standards for wood products trade. Once both the producer and consumer country partners agreed upon appropriate legality standards, the consumer country partner then commited to buying only licensed wood from its partner country. Consistent with WTO rules, however, no restrictions could be allowed on trade with non-partner countries.

The EU's voluntary partnership agreements are most certainly an innovative approach to reforming the Northern market for tropical wood products. Furthermore, the willingness of EU countries to take responsibility for their own roles in illegal logging, together with active collaboration with a range of stakeholders, suggests a fairly broad scope of vision. Further suggesting than more than just words are at play, four EU countries are currently actively engaged in negotiating partnership agreements with four developing countries (Humphreys forthcoming).

While the focus of this section is on actor strategies within multilateral negotiations rather than on strategies pursued outside of the negotiating context, a quick glance at unilateral strategies does also indicate innovative action. For example, as far back as the 1970s, EU governments had implemented procurement policies restricting the purchase of tropical wood products for government use to

"sustainable" sources only. Currently Denmark, France, Germany, the Netherlands and the UK have government procurement policies in place (Brack and Saunders 2004). The current trend is to require that all wood products, not just those originating in the tropics, be certified as coming from sustainable sources. Actions by the EU, however, will not put much of a dent in the trade in illegal wood without similar initiatives from other consuming countries around the globe.

A key country in this equation is the United States. The US, however, has declined to engage in either unilateral or multilateral demand-side source verification (with the exception of the few tree species listed in the Convention on International Trade in Endangered Species (CITES)). Instead, US unilateral action includes the establishment of the "President's Initiative Against Illegal Logging" which focuses entirely on supply side measures. As of May 2004, the US claimed to have spent around 15 million dollars to address illegal logging worldwide. The issue areas prioritized include governance, community involvement, technology transfer and "harnessing market forces" (USAID 2004). The justification for the approach is couched entirely in terms of environmental protection and the socio-economic welfare of targeted countries. The refusal to address demand side issues, however, is certainly counter to the position of most ENGOs. It is consistent, furthermore, with the prioritization of economic and trade concerns over the environmental and social impacts of illegal logging.

Canada's approach, meanwhile, is somewhat distinct from both those of the EU and the US. Canada is not a major importer of tropical wood products and, hence, arguably plays less of a role in demand side pull from illegal sources. The country's role is nevertheless a concern to ENGOs, as demonstrated, for example, by a Greenpeace press release denouncing the import into Canada of Liberian wood allegedly "used to fund international arms trade and terrorism" (Greenpeace Canada 2002). The same year as the publication of this press release, Canadian delegates reported to the East Asia FLEG Task Force that Natural Resources Canada was in the early stages of reviewing its procurement policies (EA-FLEG Task Force 2002).

In terms of supply side initiatives, Canada's interest increased significantly with the establishment of the third FLEG, known as the Europe and North Asia (ENA) FLEG. Russia, a country with strong diplomatic links to Canada, was the host of the first ENA FLEG Ministerial in St. Petersburg in November 2005. Canada has thus far contributed US $50,000 dollars to the ENA FLEG process (CFS personal communication January 13, 2006) and sent four government delegates to its first Ministerial meeting. In terms of the interests driving this Canadian support, it is of doubtless relevance that both Russia and Canada are major softwood producers and exporters. Hence, the Canadian government's primary interest in ENA FLEG is fairly well explained from a medium-term economic perspective.

The table below summarizes the involvement of key case study countries in the four regional FLEG processes as of November 2005.

Table Case study countries involved in FLEG processes, November 2005

Country	East Asia and Pacific FLEG	Africa FLEG	European Union FLEGT Action Plan	Europe and North Asia FLEG
South Africa		X		
Indonesia	X			
Brazil				
Russia				X
Australia				
Finland			X	X
Germany		X	X	X
USA	X	X		X
Canada	X	X		

Source: D. Humphreys. Forthcoming. *Logjam: Deforestation and the Crisis of Global Governance*. London: Earthscan.

Arguably, the most innovative and potentially far-reaching approaches to the governance of both supply side capacity building and demand side discrimination have occurred outside of government forums. Forest certification was a pioneer in these non-state strategies. The following sections will cover the strategic dynamics of forest certification in more detail. However, it is important to at least briefly discuss the role of certification expressly in the context of illegal logging.

It is generally agreed that forest certification has yet to make headway in the monumental areas of tropical forest degradation, deforestation, and forest crime. However, as soon as this became evident to the NGO community, various NGOs began to innovate ways to utilize key elements of forest certification to enhance other complementary efforts. Diverse organizations such as the Worldwide Fund for Nature (WWF), The Nature Conservancy, and Tropical Forest Trust were instrumental in developing the concept of step-wise certification. The rationale behind step-wise certification is that many tropical forest operators are in need of considerable support and capacity building before they can be expected to meet the certification standards in full. Step-wise certification, therefore, begins with the determination of a forestry operation's legality. That first step is of great potential use in government and industry procurement policies. For many ENGOs, however, this first step must necessarily be followed with a long-term commitment to continue the upward climb of performance standards until full FSC-accredited certification is reached.

Also of direct relevance to the illegal logging issue, many forest certification systems have developed their own wood procurement requirement. The FSC was the first system to develop on-product labels and also the first to enforce minimum standards for the non-certified wood included in certified products. However, other systems have followed suit. The Sustainable Forestry Initiative, a US industry-backed initiative, now requires its processing and manufacturing members to purchase wood only from "sustainable sources." The SFI standards are quite broadly worded, however, in regard to the purchase of wood products from outside the US and Canada (SFI 2005). Nevertheless, they do constitute a strategy for preventing SFI members from purchasing illegally produced wood products.

In sum industry, ENGO and government actions in the negotiation of international governance structures have included some substantial efforts to create innovative win win solutions. Regional approaches, from the FLEGs to the EU driven FLEGT, seem to have achieved more movement than has occurred at the level of global forest negotiations. However, regional independence can also lead one region to sabotage the work of another. Demand-side strategies are undermined if major wood product consuming countries decline to participate, hence leaving ample alternative markets for illegal wood products. The US has been resistant to addressing this problem in its refusal to adopt demand-side policies.

In terms of the length of vision employed by various actors, EU governments and ENGOs on the whole could be credited as among the most proactive. Arguably, the EU's relative proactivity can in part be explained by the region's relatively high consumption of tropical timber. Nevertheless, the adoption of voluntary partnerships by some EU countries speaks to a long-term vision predicated on a faith that wider-spread global collaboration will follow. Meanwhile, efforts by ENGOs and others to develop step-wise certification, combined with the openness of some EU governments to incorporate such stakeholder efforts, may help lead clear the path for other countries to follow.

Climate change

As mentioned above, Canada is a significant contributor to climate change, as well as particularly vulnerable to climate change impacts due to its northern location and resource dependent economy. The Canadian Government has taken some meaningful steps towards addressing climate change, having ratified the Kyoto Protocol, the multilateral environmental agreement on climate change assigning binding reduction targets and timetables to Parties (Canada's Record on Climate Change 2005). In addition, many provincial governments are drafting climate action plans and goals for mitigating greenhouse gas emissions. However, environmental groups are urging both provincial and national governments to adopt more stringent policies, contending that the governments are making insufficient steps towards complying with Kyoto commitments and that Canada will fail to meet its targets. Yet, some progress is being made, and as a result of Canada's participation in the international climate regime, a number of industry firms are addressing the inefficiencies of their own production processes and are beginning to collaborate with the federal government and environmental groups, forming agreements which are outlined in the following section. While these agreements do not bind the industry to adopt absolute targets, they do demonstrate the increasing interaction among various climate actors, such as firms, environmental groups, and government agencies.

Forest managers, on the other hand, have not had engaged in substantial interaction with governments and environmental groups in regard to climate change. While there are some government research projects on forested lands within Canada, pressure to act on climate change has largely been placed on the industry emitters rather than on forest managers. One plausible explanation for this discrepancy could be that the forest products industry is included in Kyoto targets, whereas managed forests have yet to be added into national inventory numbers. Industrialized nations that are party to the Kyoto Protocol are required to include emissions from afforestation (creation of forests on lands that have been out of forest use for at least fifty years), reforestation (establishment of forests on land that lacked forests in 1989), and deforestation (non-temporary removal of forests) in annual emissions inventory reports. However, forest management – either through the regeneration following harvest or removal during harvest – does not fit into any of the above categories. Industrialized nations have the option of including forest management into inventory accounting. Canada will have to decide this year whether it will choose to do so, and the nation will include forest management emissions only if they are projected to remain a sink. This exercise is challenging, as natural disturbances, such as fire and pests, are difficult to predict, and, therefore, forest management could be a source in future years (Bennett 2003). The burning of forested lands, for example, can release greenhouse gases and, therefore, forests can be a net source of emissions. Also, the harvesting of forests, a carbon-based resource, can be a source of greenhouse gases, as soil is disturbed and wasted

wood pieces decompose and, in turn, release carbon. However, in the absence of disturbances, forests can remain a net sink, sequestering carbon and storing it in soils, roots, foliage and other forest vegetation (Bennett 2003). Thus, the sector's emissions are highly variable and depend on natural disturbances. For example, although the sector was a sink for greenhouse gases in 2003, it was a source, emitting greenhouse gases, in 1995 as a result of extensive forest fires (Canada's Greenhouse Gas Inventory: 1990-2003 2005). It is, therefore, possible that interactions among actors in regard to forest management have yet to emerge and will do so if and only if there is a regulatory driver (in this case, the inclusion of forest management into Kyoto emissions targets) that creates overlapping interests.

Application of framework: overview

Because Canadian action on climate change, relative to other environmental problems, is in its early stages, most activities taken by the Canadian federal and provincial governments, firms, managers, and environmental groups have largely been driven by "seat of the pants" interests, punctuated by a few noteworthy short-term, strategic actions. As the Canadian government struggles to meet its Kyoto targets, and climate change increasingly takes its toll on forested lands, communities, managers and firms, Canadian actors will be left with no choice other than to develop more long-term strategies and alliances to maintain sustainable economies and livelihoods. The following sections describe the current interaction among government, forest product firms and managers, and environmental groups on climate change and speculate how long-term win win strategic thinking might take shape in the future to contend with the climate change problem.

1992 and beyond: Seat of the pants and short term strategic activities

Canada's commitment to climate change was initiated in 1992, upon the establishment of the United Nations Framework Convention on Climate Change (UNFCCC), the precursor to the Kyoto Protocol. In addition to signing the Framework Convention, Canada also ratified the Kyoto Protocol, which is the multilateral environmental agreement on climate change assigning binding reduction targets and timetables to Parties (Canada's Record on Climate Change 2005). In ratifying the Protocol, Canada committed to reducing its average annual greenhouse gas emissions for the 2008 to 2012 compliance period by 6% below 1990 emissions levels (Bennett 2003). Thus, Canada's federal government *acquiesced* to global pressures to collaborate in climate mitigation, unlike the United States, which has *resisted* ratifying the Kyoto Protocol. Yet, in comparison to other government actors, Canada could have acted in a more long-term, strategic manner, much like the European Union did in creating its own emissions trading scheme preparing its firms in advance of the Kyoto Protocol's entry into force. In addition, Canada has yet to move beyond short-term strategic activities, as the nation has not made any plans for reduction targets and activities in a post-Kyoto world after 2012 (The Case for Deep Reductions: Canada's Role in Preventing Dangerous Climate Change 2005). This failure leads to significant risks and uncertainty for businesses, as well as for emissions reduction project planners. Moreover, it demonstrates that the government has *resisted* addressing the long-term nature of the climate change problem, which is critical given the thermal inertia of the climate system and lag of climate impacts.

Despite its commendable participation in the multilateral climate regime, Canada has *resisted* developing necessary national policies that will force firms to take deep enough emissions cuts. Thus, Canada -- lacking stringent national policies, as well as housing high energy-intensive industries and being characterized by large distances among cities and cold weather, which requires increased heating – has been struggling to meet its reduction target. In 2003, Canada's emissions were 24% above those in 1990, which is the baseline year for the Kyoto targets. In April of 2005, Canada released a climate change action plan to map out more proactive reductions strategies, but the plan falls short of establishing the necessary cuts in emissions and the government has *resisted* to adopt more aggressive policies, having *acquiesced* to industry pleas to water down targets and timetables. The plan is incentives-based and is a

generous agreement with industry (Stephane Dion December 2005). For example, the industrial emitters are required to reduce 36 megatons, which is only 13% of the plan's total emissions reduction, despite the fact that industrial emitters contribute to almost 50% of Canada's emissions (Canada's Record on Climate Change 2005). Canada will, therefore, be forced to rely on both domestic and international offsets, generated through sequestration and emissions reduction projects. Canada can afford to do so because of the royalties from extracting oil from Alberta's tar sands, which will create sufficient funds to buy offsets (Stephane Dion December 2005).

In regard to provincial action on climate change, some Canadian provinces have yet to adopt strategic behavior, while others have moved beyond "seat of the pants" behavior and have developed climate action plans, outlining possible avenues for emissions reductions. Greenhouse gas emissions have steadily increased in all provinces except the Yukon since 1990, with the sharpest increases in New Brunswick, Alberta, Saskatchewan, and British Columbia. The provinces have a large share of responsibility for management of the nation's natural resources, electricity management, and other areas that could influence climate policy, including residential and commercial building codes. In addition, they have jurisdiction over the nation's municipalities. Therefore, the provinces could play significant leadership roles in climate change mitigation, potentially *innovating* industries and policies, given their wide-ranging powers. The federal government, recognizing this potential, has decided to collaborate with the provinces, having granted $3 billion to provincial governments in April of 2005 to take action on climate change. The government hopes to initiate more *innovative* policies, like several that are already underway (e.g. B.C.'s commitment to reduce sprawl and preserve agricultural lands; Alberta's use of 90% renewable energy for government activities; Saskatchewan's tax rebates for energy-efficient devices; among others) (All over the Map: A Comparison of Provincial Climate Change Plans 2005).

British Columbia has adopted some strategic thinking, having crafted a climate change action plan, comprised of forty individual actions with sector-specific emissions targets. For example, the plan calls for 50% of new electricity to be generated from clean, renewable sources. The plan supports reforestation activities, which are currently responsible for planting more than 200 million trees every year. The provincial government is also providing $365 million for the development of a rapid transit line from Vancouver to Richmond. In addition, the provincial government with support from the federal government has donated $240 million towards a highway improvement project, which, according to the plan, promotes efficient transportation. The plan also includes a number of other activities from a range of sectors, such as agriculture, government operations, buildings, energy, and others (Weather, Climate and the Future: B.C.'s plan 2004). It should be noted, however, that the actions are only goals and have yet to be codified into law.

In these early years of establishing practices for meeting Kyoto targets, it should be of no surprise that there has been interaction among government agencies, environmental groups, and emitting firms to address the climate change problem. As mentioned above, the government has largely *acquiesced* to industry pressures to weaken targets and timetables, which has caused many environmental groups to place pressure on policymakers. However, there has been some notable strategic behavior characterizing industry firms, including those within the forest products sector, which is the largest industrial energy user in the nation. For example, the Forest Products Association of Canada (FPAC) and the federal government signed a Memorandum of Understanding in 2003, committing the industry to reduce its greenhouse gas emissions intensity by an average of 15 percent during the initial Kyoto commitment period (2008 to 2012)(Natural Resources Canada November 6 2003). The Association announced during the recent 2005 climate change negotiations held in Montreal, that the industry has already achieved a 44% decrease in greenhouse gas emissions intensity since 1990 (Canada's Forest Industry Achieves Incredible 44% Efficiency in Reducing Greenhouse Gas Emissions: Press Release December 7 2005). It should be noted, however, that intensity targets are not synonymous with absolute emissions targets, and while energy efficient measures can decrease emissions intensity, overall emissions can still rise as

production rises, which does not aid the Canadian government in meeting its absolute Kyoto targets. In addition to collaborating with government, FPAC has recently joined together with The Climate Group, a leading non-governmental organization devoted to climate change mitigation, to promote emission reduction activities, explore the use of biofuels in production processes, work with industry partners outside of Canada to reduce emissions levels, as well as develop future targets and activities for the post-Kyoto period after 2012 (FPAC and the Climate Group to Collaborate on Climate Change Mitigation Initiatives December 7 2005). Individual firms are beginning to think more strategically as well. For example, Canada's largest softwood, plywood, and veneer producer, Riverside Forest Products Limited, adopted a pilot program to assess weaknesses in energy performance and found that by modifying some system motors and fan operations, they could save energy and $98,200 in energy expenditures (Provincial and Territorial Impacts: Regional Impacts -- British Columbia 2005). Yet, firms are largely adopting self-interested short-term predictable strategies, as energy savings equate to dollars saved and increased revenues. Once the so-called "low-hanging fruit" efficiency projects are exhausted, firms will be forced to look towards longer term, perhaps even *innovative,* strategies.

In regard to actor engagement on forest management and climate change, there are a number of sites throughout the nation where forest managers, academics, and the federal government have been working together to research and manage forests in a changing climate. For example, the Government of Canada has created the Canadian Climate Impacts and Adaptation Research Network (C-CIARN), which strives to bring a number of actors, including forest managers, researchers, forest-dependent communities, and policymakers, together to study climate impacts and develop both mitigation and adaptation strategies (CFS 2005). Yet, as discussed above, because forest management activities have yet to be folded into Kyoto targets, managers have not been required to act strategically in mitigating emissions or adapting to climate change impacts. Environmental groups, concerned more with the federal government's inability to meet international and provincial climate targets, as well as with energy-intensive industries, have yet to target their campaigns upon unsustainable forest management of the lack of adaptation strategies among forest managers.

Is there a strategic way out?

As explored above, the majority of actors in the climate problem – government agencies, firms, forest managers, and environmental groups – are currently driven by "seat of the pants" behavior and short term interests. Yet, climate change will require long term, *innovative* thinking because even if our society were able to stabilize emissions, we will still witness climate change impacts in the decades and centuries to come due to the climate system's thermal inertia (Report on the Meeting of the Ad Hoc Technical Expert Group on Biodiversity and Adaptation to Climate Change 2005). Accordingly, actors will need to adopt a two-pronged approach for managing climate change: first and foremost, to reduce greenhouse gas emissions, and, secondly, to employ adaptation strategies that contend with impacts already committed to and assist those populations and ecosystems most affected (UNFCCC 2005; Alaska Division of Forestry 2002). The forest sector can adopt numerous mitigation measures, reducing emissions through more efficient production practices. In addition, adaptation strategies will be critical for the sector. In many ways, adaptation to climate change is synonymous with sustainable management and mitigation. Through adaptation, forest managers can protect forests – and the forest products that industry relies upon -- from climate impacts. Forest managers and firms will need to evaluate climate change effects and support both mitigation and adaptation measures that sustainably manage forests in the decades and centuries to come (Spittlehouse and Stewart 2003). In the following section, we speculate on what a long term, win win strategy might look like for firms, managers, governments and environmental groups. How will the forestry sector advance to adopt long term strategic thinking in a changing climate?

Moving from Short Term to Long Term Strategic Behavior

In the initial stages of moving from short term to long term strategies, climate actors will begin to advance beyond resisting and acquiescing to other actors' pressures, and will make compromises with one another, entering partnerships. In regard to government action, Canada's federal and provincial governments will begin to look beyond 2012, recognizing that the Kyoto targets fail to achieve a future with stabilized, safe levels of greenhouse gas emissions. They will work with firms and environmental groups to develop meaningful climate targets and timetables, albeit at a slower pace than environmental groups had hoped for. Improved public transportation will become a top priority for provincial governments, and light rail will connect the major cities and transportation hubs. Policymakers will begin to recognize that adaptation policies are becoming more expensive than mitigation and will, thus, adopt more aggressive mid-term targets for the nation. Some deep reductions will be achieved in the following decade, but the political impetus behind the creation of such targets was to cut adaptation costs, as well as gain public recognition. In this scenario, as actors are moving from short term to long term decision processes, it is still politically infeasible to impose a carbon tax or create long-term binding targets. In regard to government action on adaptation, governments will begin to build infrastructure that can withstand the increased intensity of storms and sea level rise. In addition, Parks Canada will begin to develop corridors among national parks to aid species in their migrations. Also, the Forest Service will note the increased frequency and severity of disturbances and will adopt a more regimented fire and invasive species control plan.

During this phase, firms will shift their product mix to those products that require less energy-intensive manufacturing. For example, wood products will become more attractive, and the production of pulp and paper products will be reduced. In addition, firms will increasingly adopt low energy-intensive technologies and energy efficiency projects that have mid-term paybacks (Bennett 2003) and will enter agreements with environmental groups to meet mitigation targets. Firms will recognize that proper forest management for climate change impacts is critical to their products supply, and will accordingly work with forest managers to embrace adaptation strategies as a means of risk management. Both sets of actors will recognize that the future composition of forests will be driven by those species tolerant to climate-sensitive variables (Implications of a 2°C Global Temperature Rise for Canada's Natural Resources 2005). Species that are of greater commercial value will be prioritized in protection regimes. Managers will take more aggressive actions, modifying seed transfer zones, planting alternative genotypes, changing rotation lengths, and planning landscapes to assist in migration and to minimize insect and disease outbreaks. Forests will be trimmed and planted in a manner that lowers their vulnerability to forest fires, but with little regard to impacts to local biodiversity. Managers will also identify and plant drought-resistant tree species in areas that have witnessed decreased precipitation levels. In this enlightened self-interest stage, managers and firms will increasingly depend upon tree species that best sustain in a changing climate.

Moving towards Long Term Win Win Behavior Supporting Community Interests

As firms, government agencies, managers and environmental groups embrace long term strategic behavior, they will begin to act unpredictably and proactively, offering innovative solutions to the rest of the global community. In regard to government action, the nation will be a leader in mitigation technology research and development and will advance clean technology throughout the developing world through technology transfer programs. Canada will have adopted a goal to become a zero emitter, relying only upon renewable energy sources. In addition, Canada will have a zero waste policy, adopting stringent recycling laws and take-back laws for manufacturers. Canada will partner with the other forested nations in a multilateral agreement and environmental groups in campaigns to stop deforestation altogether. Also, Canada will have a comprehensive national adaptation framework, and will provide significant amounts of financial aid and technical assistance to developing countries, which are most

vulnerable to climate impacts as a result of their reliance on ecosystem services and low adaptive capacity.

In regard to firms moving towards unpredictable long term thinking based on community interests, the forest products industry will attempt to rely more heavily on biomass energy, generated from forest debris. It will work together with environmental groups to research safe means of extracting forest debris without compromising species habitat. Any emissions associated with energy demands that cannot be met through biomass will be offset with carbon credits from reduction or sequestration projects performed offsite. In addition, Canada will become a leader in research and development of highly efficient forest production technologies, devoting long-term investments to their creation and deployment (Bennett 2003). Upon road-testing these technologies, Canada will transfer the technologies to other countries with forest-based economies. A tax on carbon-intensive products, similar to the tax on fuel consumption in Costa Rica, will be created in Canada, and revenues will be dedicated to the protection of forests (Elgie Forests, Carbon and Biodiversity: Building Opportunities for Conservation-based Development Side Event at UNFCCC COP 11/ Kyoto Protocol MOP 1 December 2005). Forest managers will take an active stance in minimizing habitat fragmentation, as they recognize that this stressor acts synergistically with climate change impacts to species diversity (Spittlehouse and Stewart 2003). Forest firms and managers will be working together, with input from community leaders and environmental groups, to draft sustainable management and production plans for all forest species, including those that may not have great economic value but have a great value to forested communities and to the biodiversity of the region. Moreover, uncertainty exists about mitigation impacts and the role of forests, with a recent scientific article asserting that plants produce significant quantities methane – one of the key emissions causing greenhouse gases. If confirmed, the finding could turn the world of forests and carbon sequestration on its head (Schiermeier 2006) (Frankenberg et al. 2006).

Forest Certification as Non-state Governance

Introduction: Issue, Actors and Interests

The story of the development of forest certification as an arena of private authority designed to bypass governments is a complex one involving multiple actors at multiple scales. Within the NGO community, the impetus came concurrently from both the ground up through the work of various NGOs in pioneering its implementation and from the top down as it was conceived within the arena of international forestry negotiations. At the global level, the idea of forest certification as product labeling entered multilateral discussions when international NGOs approached the International Tropical Timber Organization (ITTO) in 1989 (Gale 1998). These NGOs, including the Worldwide Fund for Nature (WWF) and Friends of the Earth, requested that the ITTO carry out a feasibility study on a labeling system for tropical wood products that meet standards for sustainable forest management (Elliott 2000). The idea of product labeling was met with resistance from tropical producer countries, and never proceeded within the ITTO beyond the level of investigation and debate. Meanwhile, at the ground level, a number of NGOs mostly based in North America, began to pilot the implementation of certification and on-product labeling gaining legitimacy through their own policy networks and local-level consultation.

The combination of these efforts resulted in a wide coalition spearheaded by the World Wide Fund for Nature's and its allies to abandon what it now deemed futile efforts to achieve a meaningful and binding global forest convention and instead develop and promote a market-based approach. In 1990, the WWF together with a variety of NGOs, European retailers and US foundations, held a meeting in California to explore the possibility of developing an independent global certification organization. Three years later, they held a founding meeting in Toronto for a global "forest certification" system, known as the Forest Stewardship Council. Their approach contained a relatively simple idea: develop a set of environmental and socially responsible rules governing sustainable forest management, and recognize companies who

adhere to such practices by providing them a market advantage – which would come in the form of a "boycott shield", an important but difficult to measure reputation as being responsible stewards and, it was hoped, a label that could be used to market eco-friendly forest products to concerned customers. It was a relatively simple solution that would have complex and enormous impacts (British Columbia. Ministry of Forests 2004; Cashore, Auld, and Newsom 2004). When forest certification first emerged, the vast majority of industrial forest companies around the world fended off such pressures, asserting, as they had during initial efforts to increase domestic and international policy processes, that there was no need for such an effort and that, if anything, forestry problems were practices elsewhere.

Forestry-focused governmental agencies in Europe and North America reflected and supported this approach and with their industrial forest companies pointed to tropical forest degradation as the real culprit, while they already practiced responsible forestry. However, after select forest companies and forest owners began to express interest in the FSC, and as retailer giants such as Britain's B&Q, later to be followed by Home Depot, came to support the FSC, a growing number of industrial forest companies, including those in Canada, began to compromise, either by accepting the idea of forest certification but creating "industry friendly" alternative programs, or by working from within the FSC to create business-friendly regional standards.

Before we turn to the specific case of British Columbia specifically, and Canada generally, we review the key programs vying for industrial forest companies' support, and their overall approach to forest management.

Two Conceptions of Forest Certification

It is important to note that the complex array of forest certification programs vying for support and market place credibility can be traced to two very difference conceptions of what they were supposed to accomplish. The first conception (represented by the original starting point of the FSC)

Table 1: Different Conceptions of Forest Certification		
	Conception One	Conception Two
Who participates in rule making	Environmental and social interests participate with business interests	Business-led
Rules – substantive	Non-discretionary	Discretionary-flexible
Rules – procedural	To facilitate implementation of substantive rules	End in itself (belief that procedural rules by themselves will result in decreased environmental impact)
Policy Scope	Broad (includes rules on labor and indigenous rights and wide ranging environmental impacts)	Narrower (forestry management rules and continual improvement)

Source: Cashore (2002)

is based on a conception of market-driven governance that sees private sector certification programs forcing *upward* sustainable forest management (SFM) standards. To accomplish this, the FSC created nine "principles" (later expanded to 10) and more detailed "criteria" that are performance-based, broad in scope and that address tenure and resource use rights, community relations, workers' rights, environmental impact, management plans, monitoring and conservation of old growth forests, and plantation management (See Moffat 1998: 44; Forest Stewardship Council 1999). The FSC program also mandated the creation of national or regional working groups to develop specific standards for their regions based on the broad principles and criteria.[22] In addition, the FSC required that forest owners be "certified" by independent auditors for compliance to these rules. Among the first of the certifiers to be accredited was the Rainforest Alliance, whose SmartWood Program included a network of the US-based NGOs that had already launched pilot certification programs of their own. As we will see, this grounding within an NGO community itself created an uneasy alliance/home between: those NGOs promoting low impact eco-forestry and local community benefits (who were usually the first to support and promote the FSC) and who viewed the FSC as a means to promote a paradigm shift away from large-scale sustained yield timber production and global trade, towards an emphasis on ecosystem-based forestry, public participation, and local benefit -- with other NGOs that sought to minimize the impact of industrial forestry, rather than replace it.

Perhaps more important than the rules themselves is the FSC "tripartite" conception of governance in which a three-chamber format of environmental, social, and economic actors, every chamber with equal voting rights, has emerged.[23] Every chamber is internally divided equally between North and South representation (Domask 2003). Two ideas were behind this institutional design. The first was to eliminate

business dominance in policy-making processes in the belief that this would encourage the development of relatively stringent standards, and facilitate on-the-ground implementation. The second was to ensure that the North could not dominate at the expense of the South – a strong criticism of the failed efforts at the Rio Earth Summit to achieving a binding global forest convention (Lipschutz and Fogel 2002; Domask 2003; Meidinger 1997; Meidinger 2000).[24]

The governance features are important because while they addressed longstanding environmental group complaints about business domination, created new credibility problems, especially forest companies and forest owners, who, as those would have to actually implement SFM rules, were force to share power in an economic chamber with companies along the supply chain who might demand FSC products, as well as with consulting companies created by environmental advocates. These governing features, as well as the more prescriptive approach offered by the FSC, negatively affected forest owners evaluations of the FSC (Sasser 2002; Vlosky 2000; Rametsteiner 1999) and encouraged the development of "FSC alternative" certification programs offered in all countries in North American and Europe where the FSC has emerged. In the US, the American Forest and Paper Association created the Sustainable Forestry Initiative (SFI) certification program. In Canada, the Canadian Standards Association (CSA) program was initiated by the Canadian Sustainable Forestry Certification Coalition, a group of 23 industry associations from across Canada (Lapointe 1998). And in Europe, following the Swedish and Finnish experiences with FSC-style forest certification, an "umbrella" Pan European Forest Certification (PEFC) system (renamed the Program for the Endorsement of Forest Certification in 2003) was created in 1999 by European landowner associations that felt especially excluded from the FSC processes.

In general, FSC competitor programs originally emphasized organizational procedures and discretionary, flexible performance guidelines and requirements (Hansen and Juslin 1999: 19). For instance, the SFI originally focused on performance requirements, such as following existing voluntary "best management practices" (BMPs), legal obligations, and regeneration requirements. The SFI later developed a comprehensive approach through which companies could chose to be audited by outside parties for compliance to the SFI standard, and developed a "Sustainable Forestry Board" independent of the AF&PA with which to develop ongoing standards. And similar to the SFI, the CSA focus began as "a systems based approach to sustainable forest management" (Hansen and Juslin 1999: 20) where individual companies were required to establish internal "environmental management systems" (Moffat 1998: 39). The CSA allows firms to follow criteria and indicators developed by the Canadian Council of Forest Ministers, which are themselves consistent with the International Organisation for Standardization (ISO) 14001 Environmental Management System Standard and include elements that correspond to the Montreal and Helsinki governmental initiatives on developing criteria and indicators for sustainable forest management.

The PEFC is itself a mutual recognition program of national initiatives and draws on criteria identified at the Helsinki and Lisbon Forest Ministers Conferences in 1993 and 1998, respectively (PEFC International 2001). National initiatives are not bound to address the agreed upon criteria and indicators (Ozinga 2001), as the PEFC leaves the development of certification rules and procedures to the national initiatives. A PEFC Secretariat and Council that tends to be dominated by landowners and industry representatives determine the acceptance of national initiatives into the PEFC recognition scheme (Hansen and Juslin 1999). From the start, the program was explicitly designed to address forest managers' universal criticisms that the FSC did not adequately take private landowners' interests into account.[25]

These FSC-competitor programs initially operated under a different conception of non-state market driven (NSMD) governance than does the FSC: one that is grounded in the belief that business interests ought to strongly shape rule-making, with other nongovernmental and governmental organizations acting in advisory, consultative capacities. Underlying these programs is a strongly held view that there is incongruence between the quality of existing forest practices and civil society's perception of these

practices. Under the SFI, CSA, and PEFC conceptions, certification is, in part, a communication tool that allows companies and landowners to better educate civil society. With this conception procedural approaches are ends in themselves, and individual firms retain greater discretion over implementation of program goals and objectives. This conception of governance draws on environmental management system approaches that have developed at the international regulatory level (Clapp 1998; Cutler, Haufler, and Porter 1999).

Table 2: Comparison of FSC and FSC Competitor Programs

	FSC	**PEFC**	SFI	CSA
Origin	Environmental groups, socially concerned retailers	**Landowner (and some industry)**	Industry	Industry
Types of Standards: Performance or Systems-based	Performance emphasis	Combination	**Combination**	Combination
Territorial focus	International	Europe origin, now international	National/bi-national	National
Third party verification of individual ownerships	Required	Required	Optional	Required
Chain of custody	Yes	Yes	No	Emerging
Eco-label or logo	Label and Logo	Label and Logo	Logo, label emerging	Logo
Source: Cashore, Auld and Newsom (2004), adapted from Moffat (1998: 152), Rickenbach, Fletcher and Hansen (2000), and www.pefc.org				

Terms: Performance-based refers to programs that focus primarily on the creation of mandatory on the ground rules governing forest management, while systems-based refers to the development of more flexible and often non-mandatory procedures to address environmental concerns. Third Party means an outside organization verifies performance; Second Party means that a trade association or other industry group verifies performance; First Party means that the company verifies its own record of compliance. Chain of Custody refers to the tracking of wood from certified forests along the supply chain to the

individual consumer. A logo is the symbol certification programs use to advertise their programs and can be used by companies when making claims about their forest practices. An eco-label is used along the supply chain to give institutional consumers the ability to discern whether a specific product comes from a certified source.

NOTE: The PEFC is included in this table for comparative reasons, but it is difficult to make universal characterizations about program content or procedures, since they vary by country or sub-region (though they must meet the minimum level set by the PEFC Council).

Key Features of Non-State Market Driven Environmental Governance

Five key features distinguish NSMD governance from other forms of public and private authority. The most important feature of NSMD governance is that there is *no use of state sovereignty to enforce compliance*. The Westphalian sovereign authority that governments possess to develop rules and to which society more or less adheres (whether it be for coercive Weberian reasons or more benign social contract reasons) does *not* apply. There are no popular elections under NSMD governance systems and no one can be incarcerated or fined for failing to comply. Rather, a private organization develops rules designed to achieving pre-established objectives (sustainable forestry, in the case of forest certification).

Table 3: Key Features of NSMD governance

Role of the state	State does not use its sovereign authority to directly require adherence to rules
Institutionalized governance mechanism	Procedures in place design to created adaptation, inclusion, and learning over time across wide range of stakeholders
The social domain	Rules govern environmental and social problems
Role of the market	Support emanates from producers and consumers along the supply chain who evaluate the costs and benefits of joining
Enforcement	Compliance must be verified

Source: Adapted from Cashore (2002), Cashore, Auld and Newsom (2004) and Bernstein and Cashore (2005)

A second feature of NSMD governance is that its institutions constitute governing arenas in which adaptation, inclusion, and learning occur over time and across a wide range of stakeholders. The founders of NSMD approaches, including forest certification, justify these on the grounds that they are more democratic, open, and transparent than the clientelist public policy networks they seek to replace. A third key feature is that these systems govern the "social domain" (Ruggie 2003)– requiring profit-maximizing firms to undertake costly reforms that they otherwise would not pursue. This distinguishes NSMD systems from other arenas of private authority, such as business coordination over technological developments (the original reason for the creation of the International Organization for Standardization)

that can be explained by profit seeking behavior and through which reduction of business costs is the ultimate objective. To be sure, these arenas are important, but are very different beasts, with very different authority mechanisms, than NSMD systems.

The fourth key feature is that authority is granted through the market's supply chain. Much of the FSC's and its domestic competitors' efforts to promote sustainable forest management (SFM) are focused on convincing consumers and producers along the supply chain to support, and demand that its supplies come from certified forests (Bruce 1998: chapter 2; Moffat 1998: 42-43). While landowners may be appealed to directly with the lure of a price premium or increased market access, environmental organizations may act through boycotts and other direct action initiatives to convince large retailers, such as B&Q and Home Depot, to adopt purchasing policies favoring the FSC, thus placing more direct economic pressure on forest managers and landowners. The fifth key feature of NSMD governance is the existence of verification procedures designed to ensure that the regulated entity actually meets the stated standards. Verification is important because it provides the validation necessary for certification program to achieve legitimacy, as certified products are then demanded and consumed along the market's supply chain.[26] This distinguishes NSMD systems from many forms of corporate social responsibility initiatives that require limited or no outside monitoring (Gunningham, Grabosky and Sinclari 1998: Chapter Four).

Application of framework: overview [27]

The Forest Stewardship Council's conception of forest certification first entered the BC forest policy community an idea in the mid-1990s. A national FSC office and BC office (FSC-BC) were both officially launched in 1996. Supporters of the FSC immediately undertook an effort to expand its appeal by adding a fourth "Indigenous Peoples Chamber" for national board deliberations, and for regional standards setting processes (Forest Stewardship Council 1999). Aboriginal and forestry issues had become intertwined in British Columbia in the 1990s (Hoberg and Morawski 1997; Cashore et al. 2001), so much so that supporting aboriginal issues was hoped would help "tipping the scales" in converting industrial forest companies to support the FSC.

The BC initiative was poorly funded initially, receiving little in-kind support from domestic and international environmental groups, nor support from US philanthropic foundations that had been the lifeblood of the province's environmental movement. Most environmental groups at this time were focusing mainly on public forest policy in BC. At this time the effectiveness of the provincial Forest Practices Code, which came into effect on June 15, 1995 (British Columbia. Ministry of Forests 1995), became the focus of most environmental groups (Sierra Legal Defence Fund 1996). However, it did catch the interest of the NGO, the Silva Forest Foundation, who pioneered certification in their efforts to promote a radically different model of forest management targeting small-scale, non-industrial woodlot owners interested in light touch, low-impact forest management catering to local and niche wood product markets. Although not their primary focus, Silva's early efforts were supported by Greenpeace Canada BC Chapter, the BC Sierra Club and others. Indeed, Greenpeace strategized that offering the FSC support at this time would assist in their efforts to apply further pressure on the BC government and forest companies to reform their forest management practices and policies (Greenpeace).

But at this time FSC was raised more as a strategic idea, acting as a cover for continued boycott and protest campaigns. The idea that BC companies might actually be able to meet FSC's high standards was not deemed likely. The initial response of the forest industry to the FSC came from the national Canadian Pulp and Paper Association (CPPA; now called the Forest Products Association of Canada) – and their initiation of the CSA standards noted above..

The BC forest industry's initial strategy was to address pressures for forest certification using the CSA process (Paget and Morton 1999), hoping that the CSA program would meet the requirements of its

buyers, avert boycott threats, and ensure international customers that "Canada is working towards sustainability in its forests" (Forest Alliance 1996). The CPPA committed three years of funding for CSA certification standards (Elliott 1999). The Canadian Council of Forest Ministers, the Canadian Forest Service, and Industry Canada, also gave support to the CSA certification process as a strategy aimed at secure market access (Elliott 1999) by acquiescing to the idea of forest certification, but resisting the FSC version.

As a result most BC forest companies gave their early and quick support to the CSA, which they viewed as much less intrusive and more appropriate than the FSC program. And for the same reasons, most major environmental groups, along with other social organizations[28], ended up boycotting the CSA process (Gale and Burda 1997), arguing that the CSA was an effort to reduce the stricter environmental regulations offered by the FSC (Mirbach 1997), with BC activists arguing that the CSA, by resisting FSC efforts, would permit continued clearcutting in the province (Curtis 1995). Even before CSA standards were complete, groups such as Greenpeace stated in 1995 that CSA standards "would allow products derived by large-scale clearcutting and chemical pesticides use to be called ecologically responsible," noting also that "all major environmental groups have come forward to condemn it" (cited in Greenpeace Canada, Greenpeace International, and Greenpeace San Francisco 1997,25).

By 1996 the CSA program standards were completed. While more flexible and discretionary than FSC on environmental performance requirements, the CSA was viewed by many as rigorous on rules for community consultation and a multi-stakeholder standards development process, with some industry officials believing that in this area the CSA rules were potentially more onerous than the FSC's requirements.[29]

Many BC companies latched onto the CSA initiative and explicitly criticized the FSC. Many felt that the FSC was something that had to be "fended off".[30] For instance, as the then chair of the Forest Alliance of BC, Jack Munro stated: "Even the FSC's broad principles have been generated by people with no experience in developing international standards, have been developed without any input from those involved in sustainable forest management and have had no input from government. Companies in Canada are lining up to be certified with an independent and more objective model developed by the Canadian Standards Association. And those standards will be very high indeed. What's required, and what Greenpeace Canada cannot provide, is credibility and independence (Forest Alliance of British Columbia 1997)."

The effects of FSC and CSA Efforts to Gain Support

The introduction of the FSC and CSA into BC forestry debates quickly spiraled into a high stakes competition over which program would be seen as having the legitimate authority to create certification rules. The forest industry was, for the most part, content to support and portray the CSA as the credible national certification program, while it viewed the prescriptive, wide-ranging rules of the FSC as threatening. This program's supporters recognized that if other programs gained support in the marketplace, the very vision of the FSC would be compromised, and their reasons for creating the FSC in the first place were all but lost.

Table 3.2, Strategic efforts to either gain or maintain support between 1994 and 2002

Year	FSC competitor program supporters		FSC supporters	
	Action	Strategy	Action	Strategy

1994	CSFCC approaches CSA about creating a national SFM certification program	Pacifying		
1995			Environmental groups back out of CSA standards development, condemning the program	Converting
1996	CSA releases specification and guidance documents for its Canadian SFM certification program		Founding of FSC National initiative and creation of a fourth "Aboriginal" chamber	Informing
	Industry launches domestic public relations campaign to fight international market pressure	Pacifying	Marketing campaigns in Europe begin to make direct demands for FSC certification	Converting
	CPPA and government establish international public relations campaign to counter "misinformation" given to foreign customers by environmental groups	Fending off	WWF 95 group renamed the "95 plus" group; group membership continued to expand and demands for FSC began clearer	Converting
1997	Western Forest Products begins working with SGS to develop interim standards for FSC certification in BC	Acquiescing /Compromising	WWF "buyer groups" established in other European countries and in the US	Converting
			European customers begin to cancel contracts with BC forest companies or threaten to do so in the future	Converting
1998	Western Forest Products and MacMillan Bloedel announce intentions to pursue FSC certification (June)	Acquiesce/Compromise	Creation of the CFPC in the US	Converting
			RAN and Coastal Rainforest Coalition (now ForestEthics) begins campaign against Home Depot	Converting

1999	Forest Alliance of British Columbia and Industrial Wood and Allied Workers Union seek membership with the FSC	Acquiesce/Compromise	Home Depot releases wood procurement policy that states preference for FSC certified wood (august)	Converting
			Wickes (no. 2 DIY in the US) announces procurement policy preferring FSC	Converting
			FSC changes principle nine, emphasizes maintaining and enhancing High Conservation Value Forests	Conforming
2000			Further US companies (e.g. Centex Corp., Kaufman & Board Home Corp., Lowes, and Anderson Windows) announce procurement policies preferring the FSC	Converting
2001	CSA participates in the PEFC, while not yet seeking endorsement for its program from the PEFC Council	Acquiesce/Compromise		
	CSA releases "Forest Products Marking Program"	Conforming		
2002	CSA releases draft revised standards with increased emphasis on consultation procedures and enhancements to its standards (feb)	Conforming		

Source: Cashore, Auld and Newsom (2004: Chapter Three)

FSC and CSA supporters undertook an array of strategic actions as a result (Table 3.2). Amidst this seeming chaos, significant patterns of successful efforts resulted, with the three factors described above facilitating, for the most part, FSC converting strategies. The CSA was on a more defensive and conforming mode not only in its efforts to gain acceptance further down the supply chain (among wholesalers and retailers), but also in its efforts to remain the sole choice of certification program among BC companies. [31]

The FSC supporters began their efforts with aggressive market-based converting strategies aimed at generating FSC demand further down the supply chain -- demand that was most easily created outside the Canadian political arena. Drawing on successful boycott campaigns, groups were now returning to the same companies to offer them a carrot (public recognition that they were supporting sustainable forest

management) alongside their usual stick (that they would also be subject to a boycott if they did not comply).

By pinpointing BC's heavy reliance on export markets, these environmental groups directed their energies toward convincing international buyers to avoid BC products (Stanbury 2000). By changing the demands made in a normal customer-supplier exchange, the FSC and its supporters hoped BC forest companies would pursue FSC certification. Most of the efforts were focused on Germany and UK purchasers of forest products, from the British Broadcasting Corporation's magazine publishing division, the British home retailer B&Q, and key German companies such as publisher Springer-Verlag and paper producer Haindl.[32]

In addition to the targeting of individual companies by groups including Greenpeace, Coastal Rainforest Coalition (now ForestEthics), Friends of the Earth, and the World Wildlife Fund (WWF), a core supporter of the FSC, undertook a comprehensive converting strategy that would significantly effect how BC companies viewed the FSC: the creation of buyers groups whereby new "environmentally and socially aware" organizations were created, and where member companies would be recognized by the WWF as supporting environmentally sensitive harvesting practices. The first example was the creation of the WWF 95 group, later changed to the "95 plus group", established in anticipation of the FSC in 1991. Originally it brought together 15 UK-based retail companies willing to commit to purchasing wood from "well" managed sources by the end of 1995 (World Wildlife Fund United Kingdom 2001; Hansen and Juslin 1999).[33] By 1997, FSC buyers groups existed in Germany, Belgium, Austria, Switzerland, and the Netherlands (Hansen and Juslin 1999).

The efforts of campaigning environmental groups such as Friends of the Earth, Greenpeace, and Rainforest Action Network played a role by threatening to boycott companies who did not enlist with the WWF (Paget and Morton 1999) or make similar independent purchasing policies (Hansen and Juslin 1999). These environmental groups used media campaigns showing large clear cuts in BC as an effort to focus international attention on management practices, and while these demands were at first not directly linked to FSC certification, they provided companies greater incentives than seen elsewhere to consider seriously participation in the program as a way to show they were doing the right thing (Baldrey 1994).[34]

The results of these efforts were mixed at first. The FSC was now seen as something that could not be ignored, yet there was a growing recognition that the CSA was viewed in Europe as an industry effort to avoid the teeth behind FSC certification. Companies, however, were still far from ready to commit to the FSC. Strong concerns about specific FSC principles buttressed this position. A key issue, for instance, was the FSC's Principle Nine (Jordan 1997), whose original wording stated that "primary, natural and semi-natural forests... shall be maintained, conserved and/or restored" (Moffat 1998: 44). This posed a significant barrier for BC forest companies since the vast majority of their long-term harvesting plans relied on continued harvesting of primary, or first growth, forest stands (Ministry of Forests British Columbia 2001).[35] Principle Nine, as worded at the time, was interpreted by industry and labor organizations to mean that the FSC would not permit certification of the vast majority of forest land in the province. The Forest Alliance of BC's chairman Jack Munro's argued in 1997 that the result of this was that "[The FSC] is designing regulations that make it impossible for us to operate" (Stanbury 2000,293).

This initial commitment to the CSA, and concerns that Principle Nine would destroy the BC industry, resulted in the CPPA waging its own European market efforts to counter the FSC. Yet the campaign was of a very different nature compared to FSC campaigns. The CPPA began its efforts domestically by emphasizing, through informing strategies, the negative impacts of market campaigns a critique that resonated with communities, the general public and labor unions (I.W.A. Canada 1990). BC forest companies and the CPPA asked federal and provincial governments to become involved, and both levels of government were generally receptive. They offered funding and technical support to the international

converting and informing strategies that were designed to correct the "misinformation" being distributed by environmental groups to BC supply side customers (Greenpeace Canada, Greenpeace International, and Greenpeace San Francisco 1997, 20-25; British Columbia 1994). Reflecting their trade-oriented mission, Canadian embassy officials in Europe played a key role, setting up meetings where local buyers were invited to presentations made by BC forest-company and government officials joined by provincial social interest groups (e.g. First Nations, labor unions, and community representatives).[36] Action in the media included articles published in European and US newspapers (Stanbury 2000). [37]

In other instances, the CPPA, with its office in Brussels, took a lead role with media relations and information dissemination. Its staff was instrumental in coordinating converting and informing strategies directed at European customers of BC products (Barclay 1993). It had a history of involvement in personal networking, distributing printed information material, public communication, and responding to specific crisis events (Stanbury 2000).[38] Overall, these efforts were ineffective; the CPPA was on the defensive, attempting to make the case that the CSA program did conform to international environmental concerns. Specific arguments notwithstanding, most of the UK and German publishers were interested in supporting a program that had environmental group support, since it was this condition that gave them cover from being targeted themselves.

By the mid-1990s the mood was one of continued conflict. Environmental groups remained unsatisfied with the BC government's forest policy initiatives and were unwilling to offer support to the CSA program. They continued pressing international buyers of wood from BC's large vertically integrated firms in the hope that BC companies would modify their forest management practices. However, the FSC Principle Nine -- which addresses the management of high conservation value forests -- continued to pose problems to BC forest companies who might otherwise have been willing to consider the FSC. While FSC strategists now recognized that their converting efforts in Europe would have greater success in BC if the FSC permitted some degree of harvesting of old growth forests, many of the FSC core audience supporters, who had long fought battles to preserve these forests, were reluctant to allow changes to the rules that might see environmental groups actually supporting logging in regions of the province that they were still fighting to protect.[39] At this point a stalemate existed: BC forest companies were unwilling to accept FSC and maintained sole support for the CSA, while the environmental community and foreign purchasers of BC products supported the FSC for BC forests.

With no side willing to back down, market pressure was ratcheted up another notch. Market pressure occurred at a vulnerable time for the BC industry, which was suffering the double effects of the Asian economic collapse and its restricted access to the US market given import duties set by the Canada-US softwood lumber agreement (SLA). Market efforts expanded as the Global Forest and Trade Network (GFTN) was created in September 1998, which was designed to coordinate the activities of the national buyers groups around the world (World Wildlife Fund for Nature 1999). The Certified Forest Products Council (CFPC) was launched officially in 1998, merging the former US buyers group with the Good Wood Alliance (World Wildlife Fund for Nature 1999). Its members had less specific policies than many of their European counterparts, yet the threat that this development posed was significant for the BC forest companies as together they sent approximately 73 percent of their softwood products to the US market (Council of Forest Industries 2000). Market campaigners led by the Rainforest Action Network, based in San Francisco, decided at this time to target much of their efforts on the US do-it-yourself-giant, Home Depot. They launched demonstrations against the company across the United States and Canada, and purchased advertisements informing readers that Home Depot sold products from endangered forests.

These developments occurred alongside the parallel market campaign led by Greenpeace to force logging companies to stop harvesting in BC's central coast region, which, as noted above, was important because it illustrated how environmental groups and forest companies might work together, offering a way out of the continued polarization of the public policy debates. The central coast campaign focused on MacMillan

Bloedel (now Weyerhaeuser), Western Forest Products (WFP), and Interfor, all of whom were suffering economically owing to their reliance on the collapsed Asian markets and their inability to move into the US market due to the SLA quota system. This situation rendered FSC European market converting strategies even more effective on BC companies than they might otherwise have been (Taylor and Leeuwen 2000).

The market-based campaigns were further facilitated, by the structure of the BC forest industry, whose area-based tenure rights described above places forest harvesting rights in the hands of a few large vertically integrated firms. As a result, environmental groups could focus their efforts on a small number of large companies (Stanbury 2000). Two illustrations provide evidence of these dynamics. First, the British Broadcasting Corporation (BBC) magazine, another member of the WWF 95 plus group, placed specific pressure on Western Forest Products operating on the central coast. Having been informed by Greenpeace UK that some of its products bought from German suppliers (publishers) might be coming from the "Great Bear Rainforest", the BBC, queried these German suppliers for verification, who subsequently decided they would suspend their contract with WFP.[40] Second, B&Q chairman Jim Hodkinson announced in a meeting with the World Bank in Washington on January 9th, 1998, that by the end of 1999, his stores would only carry wood products certified by the FSC (DIY 1998; National Home Center News 1998), which was directly connected to the large companies on the BC coast, as a media report noted: "B&Q is phasing out hemlock stairparts sourced from British Columbia, where there is a reluctance to go for FSC certification (DIY 1998)."

The persistence of these market pressures and the large vertical integration of the BC industry paved the way for BC companies to reevaluate their opposition to the FSC. As would be expected, companies under the most direct pressure were the first to reconsider their position. In mid-1997, Western Forest Products responded to customer demands by conducting an internal assessment of its ability to achieve FSC certification (Western Forest Products Limited 2000).[41] By June of 1998 Western Forest Products became the first BC company to announce its application for FSC certification (Hayward 1998; Hogben 1998). Not more than a week later, MacMillan Bloedel also announced intentions to pursue FSC certification (Alden 1998; Tice 1998) with CEO Tom Stephens explaining that the decision "was in response to market demand. Nothing else (Hamilton 1998)."

Yet while market demand was the driving force for change, the centralized and vertically integrated structure of BC forest companies facilitated these choices. And, at the same time, there was no single industry associational structure well positioned to develop more proactive industry responses, thus limiting other options available to BC companies. Choices to support or not support the FSC were now viewed clearly as company-specific decisions, in contrast to the view in the US that strategies concerning certification were to be developed at the national associational level.

Indeed, the FSC's success in targeting specific companies weakened the already fragmented associational system, with companies like MacMillan Bloedel terminating their membership in the Forest Alliance (Hamilton 1998) and an informal industry group on certification quickly and quietly dissolving. The announcement by Western Forest Products and MacMillan-Bloedel to pursue FSC certification threw the entire sector into turmoil, with one industry official calling it a "breaking of ranks" of previous industry support for only the CSA.[42]

What is striking about these early commitments was that they occurred before any changes had been made to the FSC's Principle Nine, illustrating the independent effects of the market-based campaign, facilitated by many structural characteristics of BC's forest sector. However, companies operating in old growth forests felt that the regional standards, still to be developed, could be worded in such a way as to continue harvesting in these forests and still meet Principle Nine. As Western Forest Products' Chief Forester, Bill Dumont, was quoted as saying, "We do not expect in any way to have to make significant

changes in our operations (Hogben 1998)." This statement stood in contrast to the previous position of the Forest Alliance of BC and illustrates the change in approach that was occurring among key forest companies in their bid to achieve FSC certification.

Standards-setting process and forest company support

These initial firm-level decisions sparked a series of strategic decisions within the BC forest industry to participate in FSC processes in order to change the program from within, rather than fighting it from the outside. At the provincial level forest companies now joined the FSC standards-setting process, rather than boycotting it, making a decision that stands in stark contrast to most US forest company decisions to not participate in FSC regional standards-setting processes. Individuals, companies, and associations began to apply for membership (Hamilton 1999; Jordan 1999), taking elected positions on the FSC-BC steering committee and nominating and having their members posted to the BC Standards Team (Forest Stewardship Council. British Columbia Regional Initiative 1999). And in a striking move, the Forest Alliance of BC, soon to be joined by BC's Industrial Wood and Allied Workers Union, decided to apply for FSC membership, attend its meetings, and influence policy debates. Importantly, this increased support was occurring as the Home Depot announced its pro-FSC purchasing policy in August of 1999 (Carlton 2000). While movement had already started in the BC case, this announcement certainly served to shore up support, with industry officials now recognizing that BC's largest market, not just Europe's, was becoming an increasingly important factor. And while the US chapter reveals that US forest companies reacted to the Home Depot announcement by altering the SFI, BC companies took this announcement as another indication that their steps toward the FSC were going to prove productive.

The result of these moves was that the CSA was being marginalized as a player in certification debates in BC, since companies were focusing on changing the FSC, rather than on attempting to make the CSA more palatable. (This stood in stark contrast to certification debates south of the border, where industry was frantically readjusting its program to conform to retailer certification requirements, while focusing on ensuring member companies remained unsupportive of the FSC).

The BC industry strategy was effective in responding to the fact that companies felt the original draft standards poorly addressed their concerns. As one industry official noted, "In BC... [the first FSC standards development process] turned out to be a complete mess, so they wiped the slate clean and they're starting over again. The industry is making damned sure that they're [at the standards development process] this time, so they get something out of it, if they have to do it." [43]

The response of many provincial governmental officials toward the FSC mirrored industry changes. Governmental officials in the Ministry of Forests and trade agencies were at first highly skeptical, laying out conditions under which certification must work in the province (British Columbia. Ministry of Forests 2000). Although industry was clearly the target, support from the government was key, since, as both the regulators and owners of 95 percent of the forest land base, their support would be important for removing any obstacles that might exist. Despite significant opening up of the BC forest policy making process in the 1990s, the BC Ministry of Forests historically has had the closest ties of any agency to the forest industry (Wilson 1998), and, as a result, industry changes in FSC certification may have facilitated the Forest Ministry's changes as well. The FSC and its supporters noted the changes, with one FSC supporter explaining that the BC government "has now embraced the FSC as one of the certification schemes, and even goes so far as to insinuate that they were integral in having it come to BC."[44] The Ministry of Forests has recently chosen to officially take a "cooperative" role toward certification (BC Ministry of Forests 2001). The new Liberal government has indicated it will work to address conflicts between provincial legislation and the FSC standard (Haddock 2000). An example is the efforts by Timfor Contractors Ltd's to obtain FSC certification for its "temporary" five year non-replaceable Forest Licence in Knight and Call Inlets**,** located on the mainland coast opposite the northern tip of Vancouver

Island. After the FSC auditor indicated that it needed a letter of commitment that the Forest License would be managed in line with FSC standards after the License ran its course, the Ministry of Forests obliged (Smartwood Program 2000).[45]

Far from its hesitant position of a few years earlier, BC forest ministry officials also participated in the post-industry joining the FSC-BC standards setting process by offering its expertise to the Standards Team. It gained two non-voting ex-officio positions in which its role was to comment on redundancies and conflicts with existing public regulations. And in its own bid to become certified, the government had the Small Business Forest Enterprise program (SBFEP) assessed to determine the changes that would be required to achieve certification on SBFEP lands, including FSC style certification (PricewaterhouseCoopers 1999).

As a result of these dynamics, seven of the ten largest forest companies in British Columbia had either made an announcement of their intention to pursue FSC certification, or had made other proactive overtures towards the FSC (Table 3.3). This support was clearly pragmatic in character, with all of these companies maintaining support for the CSA program at the same time.[46]

Table 3.3, Actions taken by ten largest BC forest companies [a] to support the FSC and CSA certification programs (indicated by hatched areas)

Company	Announcement of intention to pursue certification [b]		Other support for FSC[c]
	CSA/ISO	FSC	
Slocan Forest Products			
Weyerhaeuser/MacMillan Bloedel			
Canfor			
West Fraser Timber Co.			
Doman Industries (Western Forest Products)			
International Forest Products			
Skeena Cellulose			
Riverside Forest Products			
Weldwood			

[a] based on percentage of provincial AAC in 1998, from (Marchak, Aycock, and Herbert 1999) and adapted slightly to account for recent company mergers.
[b] Values in this table are from status report at Sustainable Forest Management Certification Coalition Web site (www.sfms.com/decade.htm) and company web sites.
[c] "other show of support" includes membership in the FSC, participation in FSC-BC standards or steering committees, and/or "major gifts or in-kind resources and services" to FSC (as listed on FSC-BC web site www.fscbc.org).

Source Cashore, Auld and Newsom (2004: Chapter Three)

The struggle in BC over certification and its accompanying rules had shifted, by 2000, from an "FSC versus CSA" competition to an internal struggle within the FSC. However, two important caveats are in order to describe this period. First, companies in BC were clearly hedging their bets -- they had not given up on the CSA approach and could easily turn to only support the CSA if the market pressure ended. Second, CPPA efforts to support the CSA in European markets had not in any way abated. Still, European buyers continued to view the CSA as unable to satisfy their own certification requirements, including the lack of an international profile.[47] The CSA has responded to the latter criticism by joining the Pan-

European Forest Certification program, although it has not yet gone further to seek endorsement from the program's council (PEFC International 2001). It also addressed its credibility issue by launching a new "Forest Products Marking Program" which introduces a chain-of-custody system and a product label (Canadian Standards Association 2001).

While leaving options open with the CSA, BC forest companies and their allies were able to use their decision to support the FSC to target what had long been considered a key obstacle: the fear that, if not clarified or changed, Principle Nine on old growth forests would make successfully pursuing FSC certification difficult. As a result, forest companies were able to use their access to the FSC, along with their continued pursuit and support for the CSA, to pressure the FSC to make compromises on Principle Nine. The BC government echoed these concerns, arguing in a press release that they "urge European buyers to support certification processes which are compatible with the sustainable forest management practiced here, but we are opposed to approaches that inherently discriminate against jurisdictions like BC which retain and protect significant amounts of primary forests while continuing to harvest in them (British Columbia. Ministry of Forests 1998)."

In part recognizing that the BC case could lead to significant gains for the FSC if the Principle Nine obstacle could be removed, the FSC made an important conforming move, altering Principle Nine to focus not on preserving old growth forests, but in maintaining or enhancing high conservation value forests.[48] Previous interpretations of the old wording that it forbade logging in old growth forests were now negated, arguably paving the way for FSC certification of at least some harvesting in BC old growth forests.[49]

Changes to Principle Nine and increasing industry roles in the FSC have created a tension among some environmental groups, illustrating the difficulty certification programs sometimes have in maintaining moral support from their core audience while simultaneously achieving pragmatic support from forest companies. Partly in an effort to limit the number of conforming actions, the Good Wood Watch was created by Greenpeace, Sierra Club of BC, The Friends of Clayoquot Sound, West Coast Environmental Law, The David Suzuki Foundation, and the Rainforest Conservation Society to specifically "[ensure] that the FSC-BC Regional Standards develops into a credible standard that upholds ecological integrity and social responsibility (Good Wood Watch 2001)." Still, BC's place in the global economy, history of sustained and extensive of dissatisfaction with public forest policy, and structure of its forest sector meant that conforming strategies were relatively minimal here, compared to other cases in the book, such as Germany and the United States.

By the end of 2001 the FSC in BC was in the rather enviable position (compared to most other cases in this book) of working to maintain forest company support, rather than still striving to achieve it. Forest companies were working within the FSC to make it more hospitable to their profit-maximizing goals, while the environmental groups pressed to keep the standard as high as possible.

The 2002 Regional Standards Decision and an Industry U-turn

Despite the rosy picture painted for FSC supporters in BC, the year 2002 would witness what some observers had predicted -- increased acrimony between industry and environmental groups over the final draft of the regional standards, and a signal from industry actors that their support of the FSC might be short lived. The conflict can be traced to the process that led to revisions of the second draft standards. Produced in the summer of 2001, the final draft standard was crafted by an eight-person technical standards team and was then revised by the working group's steering committee after having been subject to widespread public comment. By a 7-1 margin with Bill Bourgeois, the sole industrial forestry representative, voicing his opposition, the committee voted to send the standards to FSC Canada for approval. While different actors have different interpretation of what transpired the overall story is not in

dispute. At some point during versions two and three, when discussions over very specific but important forest practices regulations were taking place, Bill Bourgeois was becoming increasingly concerned that the emerging standard was going to place the FSC as a "boutique" standard that would be unacceptable to the major industrial forest companies in British Columbia: "If it is the stated intent of FSC Canada to have a regional standard for British Columbia that will be applied in a limited number of unique circumstances, I would say that Draft 3 should be endorsed. On the other hand, if FSC Canada's intention is to have a standard that will be applied across a spectrum of sizes and types of forest operations, then Draft 3 should not be endorsed. In which case further work is required to develop a certification standard that measures the achievement of good forest management, and which has broad applicability in British Columbia (Bourgeois 2002)."

Of specific concern were emerging standards on riparian zone harvesting, stand level retention, the setting of "threshold indicators", and forest reserves, which would have placed BC's already comparatively high forestry standards[50] even higher vis-à-vis their North American competitors (Bourgeois 2002).[51] Mirroring industry responses to the Harcourt government's Forest Practices Act (Hoberg 2002), Bourgeois asserted that he could not support such standards without an impact assessment of the effects of these standards on industry economic health and its annual allowable cut. The announcement took other participants by surprise -- they asserted this was too late in the day to perform such an assessment, while Bourgeois felt that an assessment was not possible until the final standards were known.[52] Assessments were conducted on the economic viability and costs of the standards (Spalding 2002) and impact on allowable cut (Bancroft and Zielke 2002), and both reports predicted significant cost increases to the BC forest industry, and impacts on the AAC from 10-30% of existing allocations. Upon receiving the findings, Bourgeois wrote FSC-BC and FSC-Canada asserting that "it is the opinion of forest company managers that significant cost increases without any visible means of recovering them and severe limitations on management flexibility will be incurred if the Draft 3 standard is implemented. I encourage you to seriously take these comments into consideration in determining whether to recommend the present draft to FSC-International for approval (Bourgeois 2002)."

With the environmental participants frustrated at this turn of events, and with their belief that the standards were appropriate to certify BC forest products, the standards were passed on to FSC-Canada despite Bourgeois' objections.[53] And the FSC Canada board likewise voted to send the standards to Oaxaca for approval (FSC-Canada 2002). However, this time one economic representative on the FSC Canada board, Tembec, voted against sending the standards to Oaxaca, while the other economic member abstained. Strategic choices made by actors within the standards development process had led to an outcome in which large vertically integrated industrial companies -- the very companies FSC strategists had worked so hard to woo -- were now sidelined and indicating that their support was now far less certain than it had appeared just six months before.

At first glance, the story of 2002 would seem to contradict the argument presented in this chapter by implying that the BC case was not that hospitable to converting strategies after all. However, this interpretation would be incorrect; instead, what transpired in BC in 2002 reveals two key themes that pervade forest certification as non-state market driven governance, regardless of how conducive conditions are for the use of converting strategies. First, forest company support along the supply chain is not unconditional -- support from profit-maximizing forest companies for non-state market driven governance necessarily requires some kind of evaluation that it is in the company's economic self-interest. Hence, market campaigns matter and influence company evaluations but the demands placed on the companies must be such that the perceived benefits of supporting FSC-style forest certification outweigh perceived costs. This means that even in a region where all the factors facilitate converting strategies, FSC style certification must still fit within some kind of economic cost/benefit analysis -- and in this case the standards were perceived to be so high, and the impacts so costly, that it could not be supported as a province-wide industry standard. Second, BC's experience reveals in 2002 that the FSC

itself is not a unified body and that strategic decisions are not often made at the same level within the organization, nor with the same goals in mind.

The FSC leadership in Oaxaca, and officials from leading FSC-accredited certification bodies, were clearly concerned that the stringent BC standards would not only hamper what, they felt, was one of the FSC's best success stories, and that what happened in BC might send signals to companies far beyond the province's borders. But many environmental group participants on the BC standards committee had long focused on BC forestry and had, through years of frustration, come to see the FSC standards setting process as a way of gaining the increased standards that they were unable to achieve at the public policy level. They strongly believed that if increased rules were not put in place, the old growth dependent forest ecosystems would be destroyed and lost forever.[54]

During the fall of 2002 and winter of 2003, the FSC Secretariat wrestled with how it would respond to industry's protest, finding no easy way out of this difficult situation. If they move to strike the standards, they risk losing their most solid supporters in British Columbia, and perhaps its legitimacy among environmentalists there. If they had accepted the standards, they risked losing support from industry in one of the places in the North that has been most hospitable to FSC-style certification -- and risked sending signals to other potential industry supporters to be very careful before offering support to the FSC.

This conundrum came at a time when the CSA was given new life. The CPPA recreated itself as the Forest Products Association of Canada in 2001, hired a new director, moved to the national's capital, and immediately began to set a path of "approachment" with the World Wildlife Fund and the Global Forest and Trade Network. While efforts to have the CSA formally interact with the FSC have proven difficult, the future path in BC, and in Canada as a whole, does now seem to rest on the ability of strategic actors, both within the FSC and the CSA, to recognize what kind of strategies are most likely to be effective given the environment within which they operate, and the broader constraints imposed by market-based governance.

FSC international officials recognized these constraints. They supported changes made at their General Assembly that would require broader support from national initiatives *before* standards were sent to Oaxaca for approval. And in January of 2003 they proposed a compromise solution for the BC case in which standards would be approved, but subject to revisiting a number of the most controversial rules, and to involving forest companies directly in such revisions. Indeed, their report went out of its way to note that a number of the BC standards went "significantly beyond the requirements of the FSC P&C (Principles and Criteria) (Forest Stewardship Council 2003: 5)." And in a direct rebuke to the BC regional standards setting process for moving ahead without industry support, the report asserted that such high standards would require a "higher than normal degree of agreement (Forest Stewardship Council 2003: 5)."

The following two years witnessed sensitive negotiations about final standards to which environmental groups could support, and also allowed at least some industrial companies to evaluate that supporting the FSC was in their strategic interests.

Assessing the Framework

What sort of internal decision-making compass and resulting strategy does this indicate?

The original BC NGO vision of forest certification as an instrument to transform the scale, intensity and philosophical approach to forest management was certainly long-term and arguably quite community-based. The strategy, due in part to its novelty perhaps, was somewhat seat of the pants. Innovations, after

all, are risky ventures since there are no past examples of their outcomes. Furthermore, they often involve a painful process of convergence in order to reach a shared understanding of the appropriate way forward. In this manner small-scale, grassroots efforts to promote low impact ecosystem-based forestry became embroiled in international market campaigns targeting large-scale retailers. The result was the rapid creation of high capacity markets for FSC labeled wood products, BC forest industry response to those markets, and an NGO strategy to impose high environmental and social standards at the expense of rapid industrial uptake.

The CSA SFM system, meanwhile, took a number of years in process before the first set of standards was finalized and the first certifications completed in 2001. Before the system was launched, however, many BC companies had proceeded with certification under ISO 14001 and the SFI standard. Both environmental and BC First Nations, meanwhile, have largely withheld their support for any of these industry-backed systems.

As the chart below illustrates, as of December 2005 industry uptake of CSA and SFI certification had dwarfed that of the FSC. However, one large license-holder, Tembec has publicly committed itself to certify all of its operations to the FSC and has already done so with a BC license. Likewise, the FSC certification of other large company licenses in other provinces suggests that a critical mass of FSC certificates could lead to increasing uptake of the FSC in BC.

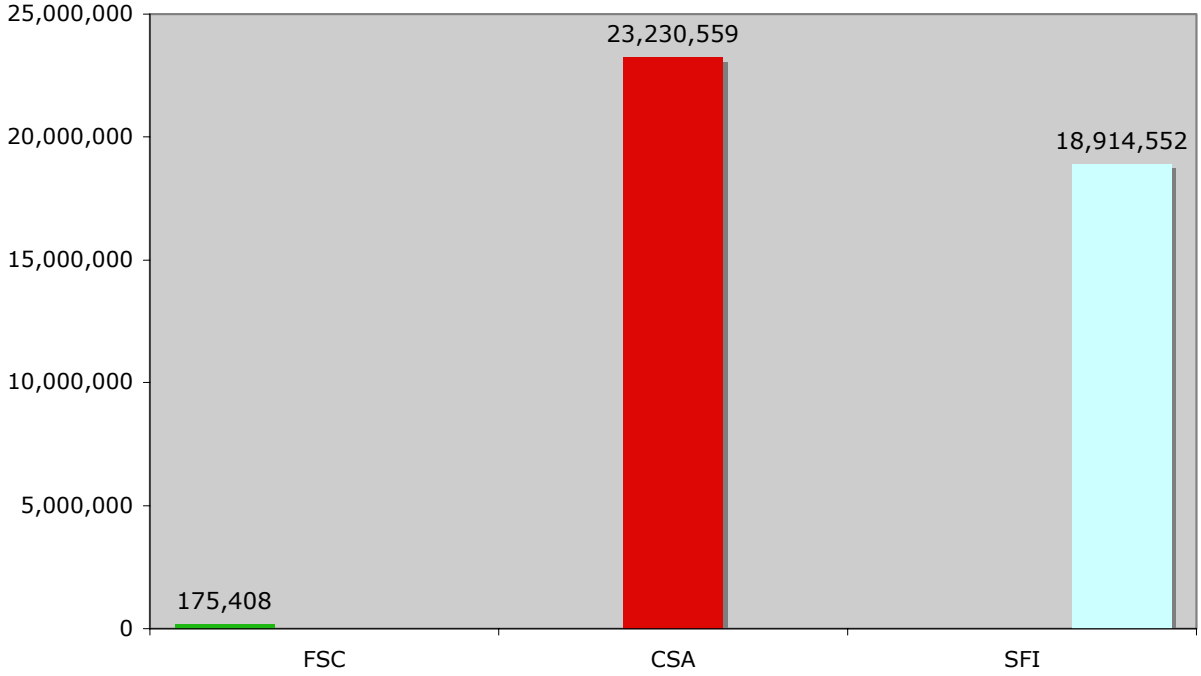

Figure Certified forest area (ha.) in British Columbia, Dec. 15, 2005

International case studies

It is important to note that just South of the border in the United States, as well as globally, industry and government actions on forest certification followed a distinctly different path. With respect to the former, the US relative self-sufficiency in wood production and consumption reduces its sensitivity to market pressures. Furthermore, the fragmented nature of US non-industrial forest ownership coupled with large integrated industrial forest companies, the presence of the AF&PA as a strong, relatively unified forest industry association, and the greater percentage of forests that are privately owned and relatively shielded from public scrutiny are among the explanations that have been proposed for the US industry's greater success in resisting adoption of FSC-accredited certification (Cashore, Auld, and Newsom 2004). The AF&PA has stood at the center of this resistance, beginning with the launch of its own certification system known as the Sustainable Forestry Initiative (SFI). This initiative, again developed in 1993, began as a system of voluntary guidelines intended for industries to use to self-assess their own operations. The SFI since then has acquiesced, piece by piece, in response to the criticism of environmental groups with the ultimate intention of resisting the FSC's spread within the United States. As will be discussed in greater detail below, this resistance has been fairly successful among large-scale industry with FSC certificates largely limited to smaller-scale and non-industrial forestry operations and state lands.

Globally, the dynamics of forest certification, including cross-system competition as well as the speed and comprehensiveness with which it has been adopted, vary greatly among countries and world regions. The reasons for this are multi-fold, including differences in patterns of forest trade, landownership, the structure of industrial and non-industrial forest producers, and the nature of ENGO interventions (British Columbia. Ministry of Forests 2004).

At the broad global scale, however, the most obvious pattern to emerge is the lack of forest certification uptake in the tropics. Ironically, it appears that the developing countries, which provided much of the

initial inspiration for certification, have not participated proportionately in its development. Thus far, the FSC is the only certification system available to most tropical countries. As of September 2005, only 13% of the total forest area certified under the FSC was located in the tropics and subtropics, although these ecosystems account for 56% of world's total forest area. Nearly half of the certified area in the tropics, furthermore, is forest plantation (FSC 2005).

Thus, despite FSC's efforts to treat Northern and Southern interests equally, the traditional global imbalance in international processes has yet to be overcome. The following chart shows the certified area by certification system for key case study countries highlighted in the forest policy section of this paper.

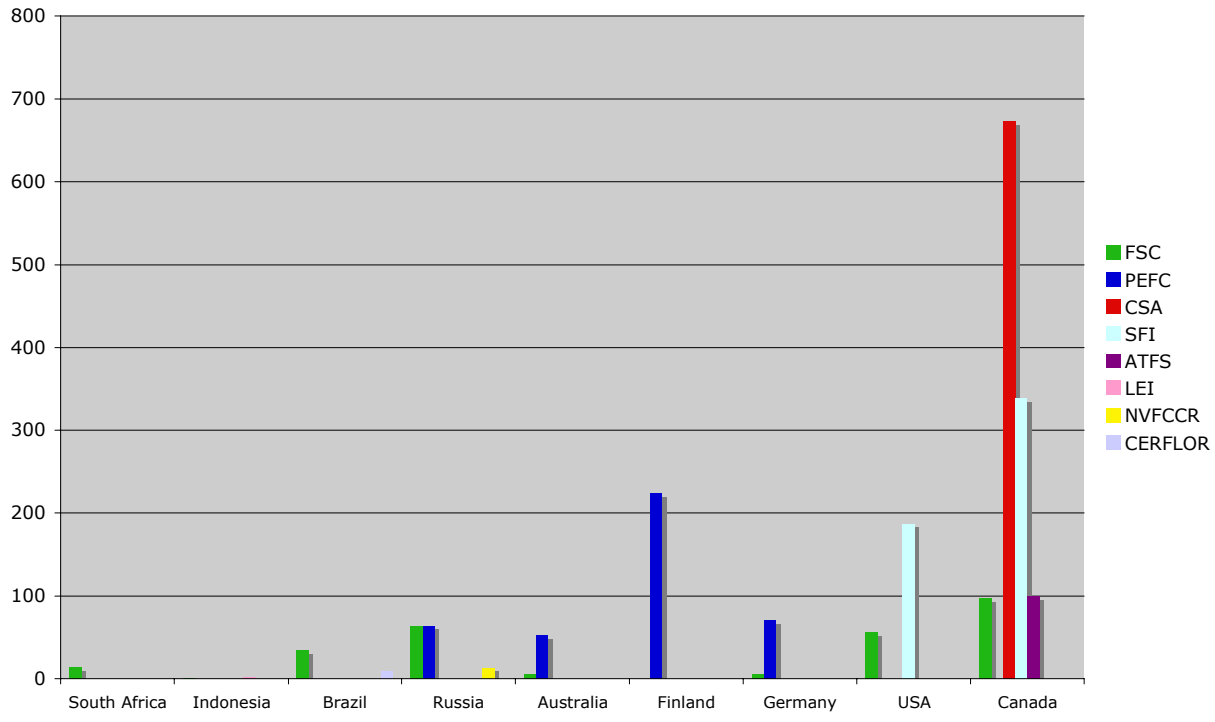

Figure Forest area (100,000 ha.) by certification system as of October 2005

Accounting for the vastly different size of the forest resource in each country, the following chart presents data on the percent of forestlands certified.

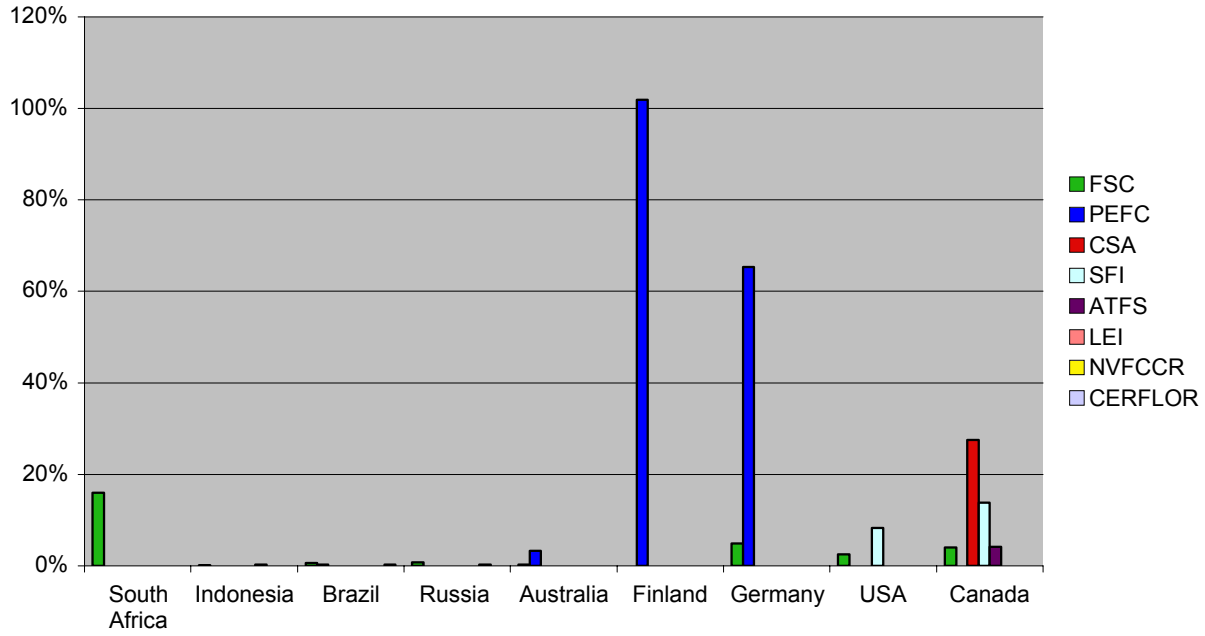

Figure Certified area by system as % of total forestlands as of October 2005

The following chart compares the percentage of forests certified to the FSC. The large figure for South Africa is due to both the prevalence of plantations in the country and the adoption of FSC certification by plantation owners.

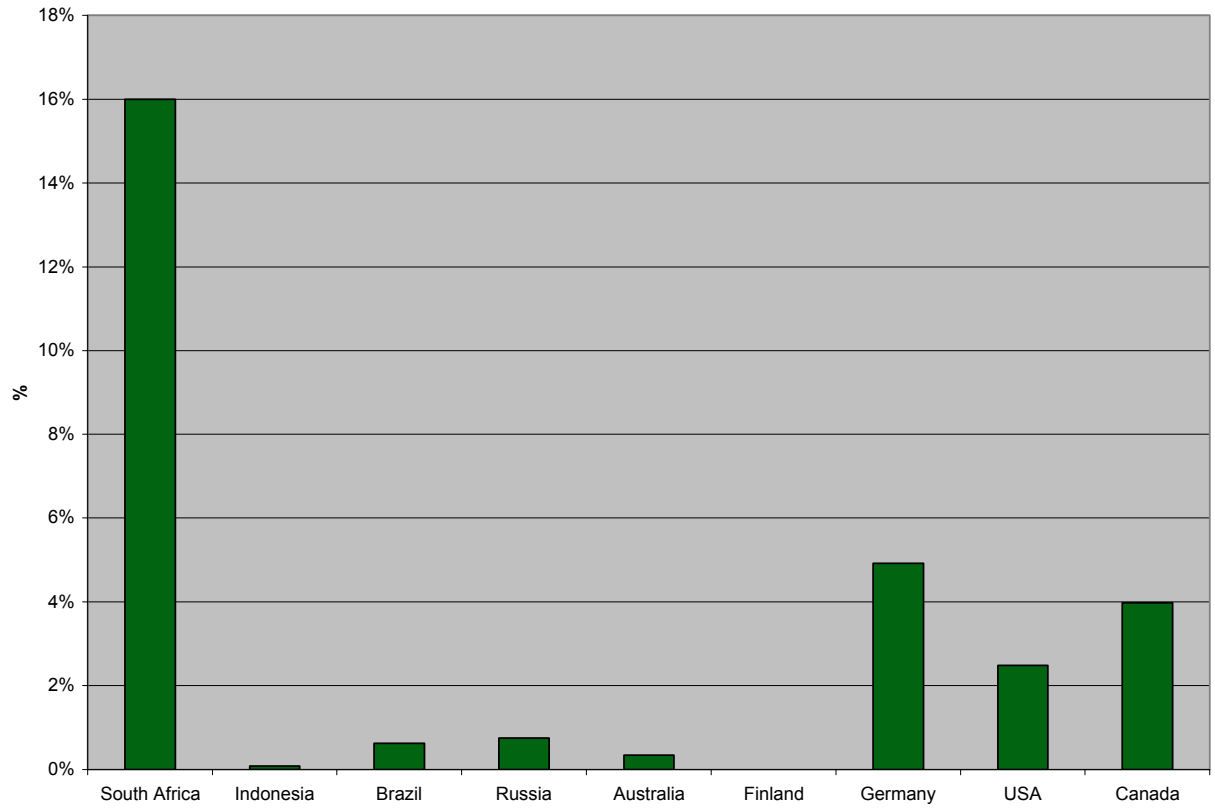

Figure FSC certification as % of total forestlands as of December 2005

Just what do all of these figures mean in terms of forest certification's overall impact on the world's forests? It is clear that only a small percentage of the world's forests are certified, and most of these are in the Northern hemisphere. However, certification may have had a larger indirect effect as a non-state governance system that has managed to transform the global dialogue into coordinated on-the-ground action in ways that inter-governmental processes were unable to do. Furthermore, its norms and standards perhaps raise the environmental, social and perhaps global awareness of forest policymakers and the many associated forest stakeholders.

The degree to which forest certification continues to be a force promoting improved forest practices depends on its ability to balance sufficiently high standards of performance with broad enough global uptake. Arguably the competition thus far between systems has been constructive in terms of forcing some degree of balance. However, it is important to keep in mind that the impetus for forest certification came from the NGO community, while the government and industry priorities have been more focused on defending market access and bolstering industry reputations. Should the various systems somehow "harmonize" into one, then it will not be clear how forest certification will maintain its impetus to improve rather than just validate existing forest practices.

As far as how similar the various certification standards have become thus far, a simple analysis using the same comparative policy framework applied above to government policies allows for some interesting observations. The following chart, comparing riparian buffer zone requirements in BC and select US states, provides just one example of the differences that might thus be uncovered.

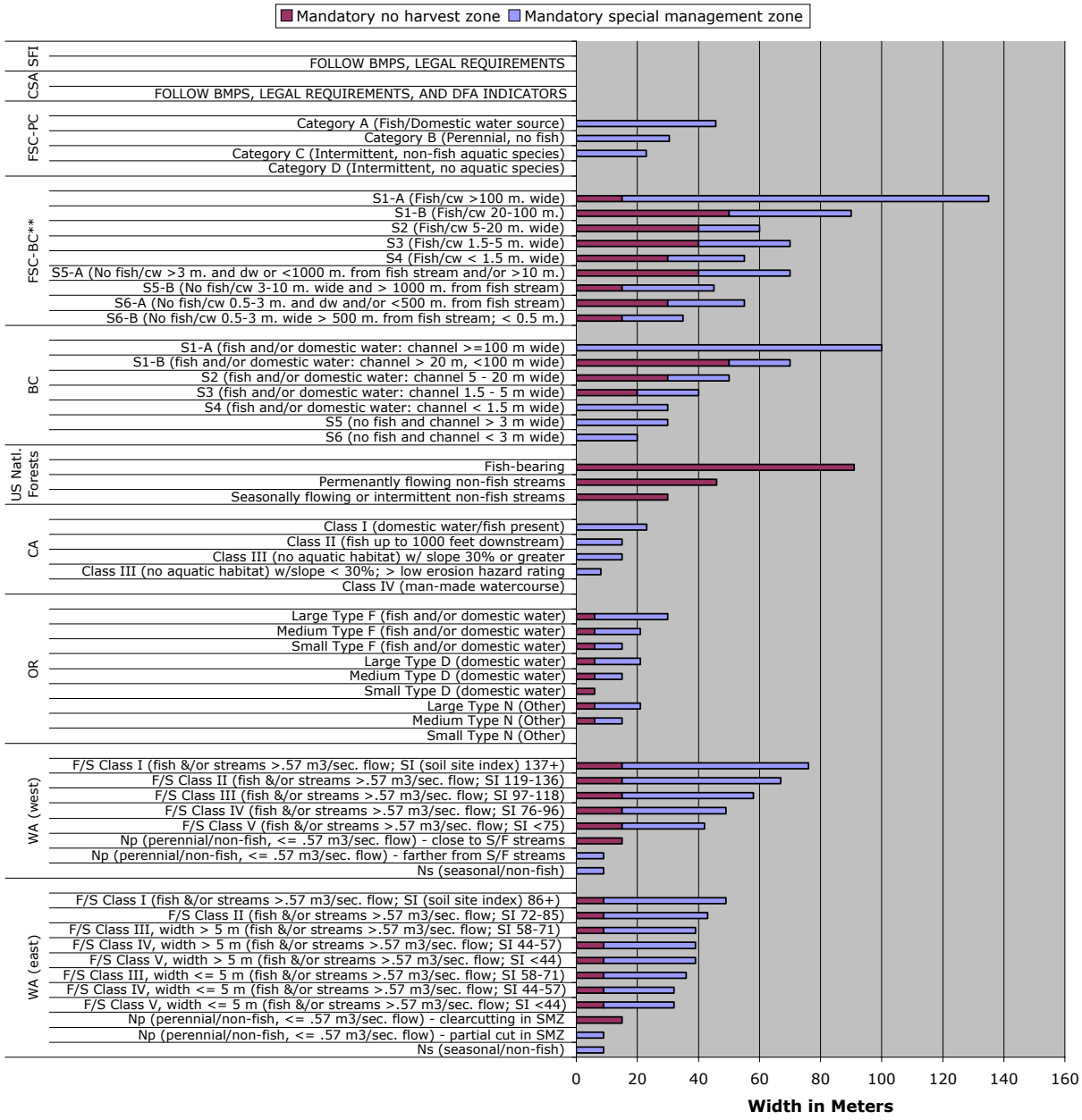

Figure Streamside riparian buffer zone widths in select certification standards

Clearly, there are substantial differences in standards among certification systems, an in the case of the FSC, as well as among regions. These standards, furthermore, must also be considered within the context of underlying government regulations to evaluate the overall differences in performance requirements.

Of course, the ultimate question facing all forest policies, whether based in government law or voluntary certification systems, is the effectiveness of these policies in achieving their intended outcomes. Answering this question requires detailed, ground proofed study and remains an area in strong need of research. We suggest, however, that increasing the global transparency of forest policies through comparative studies, as well as constructive dialogue, constitutes an important first step to learning how policies can best address the shared goal of sustainable global forest management.

VI. Conclusion

Globalization has created unprecedented risks and opportunities for the British Columbian forest sector. The rapid expansion of developing and economies in transition countries including China, Russia has heightened global competition for wood products while the US and Canada softwood lumber trade dispute has exacerbated economic uncertainties.

Whether the overall effect of increased economic globalization will work to ameliorate, or contribute to environmental deterioration of the planet, is hotly disputed (Clapp and Dauvergne). On the one hand many governments and international agencies continue to view the expansion of global trade as the linchpin of economic, social and environmental prosperity. From this perspective, economic growth is the best approach for poverty amelioration, which in turns creates the necessary preconditions for environmental protection. However, critics of this pathway note that the growth of industrial production and consumption has itself been a driver the environmental deterioration. These critics emphasize the correlation between economic growth, increasing greenhouse gas emissions, and climate change. These critics prefer a different pathway that would recognize the complex relationship between human activity and the natural environment in which feedback loops, such as the pine beetle outbreak associated with increasing climate change, create economic uncertainty that the most sophisticated economic models would have difficulty predicting. They argue that the Pine Beetle outbreak is only one of what will be increasing and accelerating impacts of climate change that a pathway focused on economic growth cannot adequately address (Clapp and Dauvergne).

Which approach has more validity in shaping organizational strategic policy choices? While most professional foresters, and governmental, industry, and environmental groups would agree that it is in their interests to act strategically, just what this means in an increasingly unpredictable world, and how best accomplish this, is not always clear.

Previous analytical efforts have attempted to reduce this uncertainty by compartmentalizing strategic responses into their component parts – hence the forest industry has commissioned economic analyses on the future of the BC and Canadian forest sectors (Nilssona and Bull 2005; *Forest Law Enforcement Governance and Trade (FLEGT) - Questions and Answers* 2004; CIBC World Markets 2005), while commissioning separate analyses on their comparative environmental regulations (Cashore and McDermott 2004). Similarly, environmental groups tend to focus campaigns on a specific issue, or target a select group of companies, and tend to limit economic analyses to questions that help them increase their particular campaign and focus (Schwindt and Heaps 1996). While such compartmentalization may reduce the task of the policy analyst, it may have the inadvertent impact of promoting policy decisions geared toward short term solutions. For instance, a logging ban in China has resulted in increased illegal logging throughout the region and expanded logging in neighboring countries. Similarly, some alliances that focus on short term strategies, such as the informal coalition among select US forest companies and environmental groups, may have unintended impacts and undermine other policy efforts, such as the promotion of restrictions on raw log exports).

How then, ought the various members of the BC forest policy community act? Are specific organizational objectives achieved by making relatively short term strategic choices? Or, are economic, environmental,

and social goals so intertwined that greater attention to strategic long-term solutions that address the range of interests within the broader community are a more appropriate way to undertake policy evaluations? Further, how do strategists evaluate the potential impact of "wild cards" such as the inevitable but uncertain effects of climate change?

Drawing on the above review we reflect on what the answer to these questions might be, focusing primarily on strategic efforts aimed at shaping environmental forestry policy. However, unlike previous analytical efforts, we assess how a range of economic, social and environmental organizations, and the decisions they take, influence British Columbia's ability to promote strategic behavior in an increasingly globalized and internationalized world. We organize this analysis around two opposing views of the effects of globalization on environmental governance: the first that it promotes a "race to the top" in terms of environmental and social protection, and the other is that it promotes a "race to the bottom", as profit maximizing firms relocate to those regions with the most lax environmental laws, social protections, and wages.

Race to the top/harmonizing up

Those who argue that increasing globalization can lead to increased environmental protection policies point to a number of reasons as to why this might be so.

Some say that increasing globalization can also lead to "harmonizing up" world wide environmental when states recognize that it is in their own self interest, in an increasingly globalized world, to enter into agreements over global commons problems – such as protection of the ozone layer or – potential forests when they seen as global resources in which all members of the world's community have an interest in their protection and the values they provide (such as ecosystem structure and function, home to transboundary flora and fauna, and even as potential carbon synchs). One of the most powerful phenomena is what political scientist Vogel (Vogel 1995) refers to as that of the "California Effect", where firms that operate in highly regulated and critically important markets, recognize that it is in their self interest to support efforts to increase rules on competitors outside of their jurisdiction. Similarly, firms who are located physically outside of prime markets, but seek access to them, are required to produce products according to the higher regulated state. Vogel says however, that the only way for the California effect to be kick started, and to maintain its logic in increasing standards world wide, is when there exists an active environmental NGO community that has the ability to shape regulatory policies in the prized market, and then to maintain this pressure and attention.

According to the California effect theseis, then, debates over regulations, and how best to achieve them, are *healthy*. They lead scholars, professionals, organizations, activists and the media to assess whether they are embedded in a process in which paying attention to solely their own organizational goals (such as profit making or environmental protection) actually create patterns of interaction that taken together, yield positive outcomes for both business and the environment. Hence, assessing when such conditions exist, or could exist, is a hugely important exercise given the challenges facing British Columbia and its position in the global economy[55].

The underlying assumptions by many arguing that globalization leads to "harmonizing up" is that short term strategic behavior can lead to, or is leading towards, potential "win win" solutions with long term benefits.

However, the corollary to this argument is that it can exist along side what Vogel refers to as "the Delaware" effect – i.e. the phenomenon where by firms race to be located in regions with the lowest environmental and social protections and lowest wages, so that they can increase profits and then ship products elsewhere (Vogel would argue that the Delaware effect explains why all US credit card

companies have their home offices in this state, or why MacMilllan Bloedel moved to Pine Hill Alabama, and Mercedes to Huntsville, following the state granting it tax concessions).

Race to the bottom –"Harmonizing Down"

Many argue that economic globalization has a negative effect on environmental, social and labour standards for two reasons. First, states will be hesitant to increase existing rules for fears that this will be "uncompetitive" in the global economy and second, because increasingly mobile firms will be able to move to those places with the lowest environmental policy protections, hence encouraging environmental deterioration. In the forestry sector such examples would be companies moving from North America and Europe to less regulated countries with cheaper labour, such as Indonesia, Malaysia, or Brazil. Vogel has termed such phenomenon as the "Delaware effect", in which narrowly defined short term self interest leads to a "race to the bottom", or the erosion of effective environmental governance. If globalization produces such an effect, then only by conceiving of organizational self-interest so broadly that it internalizes a range of values and recognizes the need to interact with other interests on long term projects, can progress be made in addressing important environmental, social and economic problems confronting the planet. According to those that emphasize the "race to the bottom", economic globalization's "Delaware effect" trumps any asserted "trading up" California effect so much so that a fundamentally realignment of traditional self interest would be needed to make progress in increasing standards.. Hence, we can reflect the "Delware effect" thesis to assess those cases in which there seems little likelihood that the "California effect" will occur. Or put another way, identify those cases where relying on such short term self interest processes to improve global standards could lead to tragic outcomes in which economic, environmental, and social woes increase. We reflect in these cases on what kind of long term strategic efforts might be needed and whether, in such cases, fundamental reorientation of self interests might be required. Here, we find that such innovative efforts such as forest certification may be on the right track, but if they are to complete their promise, requires a reinvigorated effort on the part of forest products marketing specialists and the forest products wood sector in general, to embed, fundamentally, social and environmental concerns into market transactions.

Race to the middle? Harmonizing Up and Down?

Rather than fall prey to a false dichotomy, our analysis will also consider the additional possibilities that globalization yields either a "race to the middle" or perhaps has no effect at all on existing levels of environmental governance. Furthermore, as detailed above, we will also be sensitive to upward pressures that are not owing to market focused California effects, but to the strategic behavior of states in international negotiations, which do not, inevitably, emphasize the integration of economic agreements with environmental concerns, but can also assess environmental concerns by themselves, such as occurs through efforts to develop international conventions

Our purpose here in this section is not to make definitive conclusions, but to encourage individual members of the BC forest policy community to reflect further on the long term impacts of their own organizational choices, and the degree to which such decisions reflect, or fail to reflect, longer term trends and realities. We do so by reflecting on the lessons from our above policy development review on domestic forest practices in comparative context, BC's approach to stumpage/timber pricing in the context of Canada US softwood lumber dispute; Canada's role in international efforts to achieve a global forest convention, Canada's involvement in more modest efforts to curb illegal logging; the Canadian forest sector's actions on climate change; and the Canadian role of market based forest certification

Forest Practices Policy Development

Our review above placed analytical attention on two critical research projects: the varying degrees of influence that environmental and economic interests have brought to bear on forest policy in British Columbia and the US Pacific Northwest; and a descriptive comparison of the content of forest policy in a range of jurisdictions world wide. This effort clearly revealed the need to integrate the two projects in understanding forest policy development around the world. What preliminary conclusions can we draw? Does the evidence indicate that policy development is consistent with a California effect? Is there a countervailing Delaware effect? And if so, what could be done to increase standards upward without penalizing regions such as BC that have relatively stringent (though changing) environmental forest practices regulations?

We highlight two observations. First, there is no question that a variety of interest groups' strategic efforts are consistent with Vogel's "California effect". Environmental groups consciously targeted BC exports in European and US forest products markets in an effort to increase their regulatory burdens and that these efforts, in combination with other societal efforts, had a profound effect in the development of Brtisih Columbia's forest practices code. Moreover, though industry interests were never happy with the Code and decried its regulatory burden, they were also able to use the code as a defense of forest practices. That is, they could now respond to ongoing environmental group campaigns by promoting themselves as operating under some of the most stringent forest practices regulations in the world. And, ironically, once BC companies promote themselves as being highly regulated, it makes it more difficult, everything else being equal, when they attempt to reduce or alter the regulatory burden. And while environmental groups have asserted that the changes made by the Liberal government since the 2001 elections have lowered the Code's environmental standards, the fact that the original code existed, and that they can point to it, arguably has lessened the regulatory changes that otherwise would have occurred. That is, despite legitimate concerns about the direction of the regulatory approaches being initiated, it is notable that no group, including industry, is arguing that they go back to the pre-Code 1980s environment.

What is important then, is to put in place the post code changes in historical perspective, and to assess where future regulations might be headed. On the one hand environmental groups can argue that the changes are a step backward, but a historical perspective might put it differently – that regulations are increasingly advancing in British Columbia while other competitor jurisdictions – notably those in the US South and in markets in emerging markets from Brazil, Russia and East Asia – are not experiencing near the levels of regulatory burdens. In this narrative then, the California effect would continue working by focusing not on British Columbia, as a relatively highly regulated jurisdiction, but on those jurisdictions that need to increase their standards to the BC level. Put another way, continued efforts to increase British Columbia regulations without paying attention to the regulations of its competitors may have the unintended consequence of limiting the powerful potential of the California effect. Given increasing economic globalization then, it seems logical for the focus of environmental groups and industry to link their efforts to shape forest policies in BC with other domestic and international policy initiatives. There are indeed signs this is occurring. For example, the Forest Products Association's commissioning of an international comparison represents the potential of such an approach. However, in order for this to kick start a California effect globally, greater concerted international activity would have to be placed on systematic comparisons of forest practices in different countries, and this attention, would have to link, or afford benefits to firms within countries whose policy regimes result in environmental friendly behavior.

To put it another, we the increasing pull of largely indiscriminate markets in China, together with ineffectual policy enforcement in countries such as Brazil and Russia means that it is not inevitable that the California effect will trump the Delaware effect on a global scale. Nor is it the case, nor should it be, that relatively highly regulated jurisdictions, such as British Columbia, ought to feel complacent – since existing evidence indicates that significant environmental concerns exist, and that policy will have to

adapt in the future if it is to change, mitigate, or reverses, the negative environmental impacts of harvesting operations. What then are efforts that might be undertaken to advance the California effect over global forest degradation? We make two observations:

- ***There is a need to expand outward defense and critiques of British Columbian forest practices policies (Strategic Behavior)***

For the California effect to keep on working, environmental groups, governmental agencies, and the forest sector, must expand their defense of British Columbian forest practices outward. They must enhance systematic comparisons of BC and Canada in the global community, and must support efforts in other jurisdictions to develop regulations that are appropriate within their individual social, economic and environmental contexts.

- ***Reinvigorated efforts must be placed on assessing whether, and how "trading up" (the California effect) versus "trading down" (the Delaware effect) can be encouraged***

Can innovative long term strategic efforts also play a role?

We also note that even if the California effect ends up dominating and playing a positive "ratcheting up" role in global forest regulations, then there also exists plenty of room for win win innovations. Arguably one of the most important, as discussed above, is the Feb. 6, 2006 Sprit Bear announcement that was spearheaded by environmental groups, forest companies, indigenous people, who, collaborative worked on developing a scientific basis for sustainable forestry in old growth forests. The ultimate interactions of various stakeholders fell outside the theoretical underpinnings of a California effect, where recognition that they were all part of a community, with shared interests, explained the successful competition of this historical agreement. That is, all groups came to spearhead the championing of environmental goals, and all groups recognized the need to address, and champion, First Nation's issues – issues that indeed anchored the decision in respect to the Gitga'at's spiritual connection to the Spirit Bear. Similarly, the need to address economic activity and community development were critical parts of the agreement and decision making process, leading, as we reveal above, an industry negotiator to be one of its strongest advocates.

We also note that though controversial, "results based" efforts that attempt to reduce regulatory burdens along side reduced environmental impacts associated with logging operations offer much unexplored potential. In general, Gunningham (1998) has sparked significant interest in this approach, which holds the promise that by enhancing "buy in" of those being regulated that more efficient, effective, and enduring approaches may be possible. While much has to be learned about how to implement such approaches effectively, we note that they may both require, and enhance, trust and transparency across a range of stakeholders. In so doing, it may enhance, or expand, the California effect to competition and debate around the demonstration of environmental performance rather than competition focused primarily on environmental policies. We therefore observe that:

- ***Enhanced attention must be placed on understanding the processes though which "Smart Regulation" might be encouraged for the BC forest products sector***

The commission would explore and assess the existence of "win win" policy innovations which environmental, industry, First Nations, and governmental agencies could all accept as moving in directions that address their long term interests.

Timber Pricing Policy and Canada US Softwood lumber trade dispute

Our review above revealed that a range of either "bumbling through" or short term strategic evaluations have dominated the history of this dispute. Efforts to gain ultimate clarity through WTO and NAFTA processes have instead created uncertainty and confusion, with each side claiming victory as BC and Canada focus on the favourable outcomes of the NAFTA dispute settlement process while the US focuses on the WTO claims, which were more favourable to their interests. Moreover, as the disputes get increasingly complex with more issues and more adjudication process so that only the most well versed legal scholars can understand them, long term strategic choices seem increasingly unlikely. Indeed, the latest new reports suggest that another short term solution that is a hybrid of the last two (employing both export taxes and quotas) reveals an all two familiar story.

Is there a way out?

If there is a way out for finally ending the softwood lumber dispute it will involve much more strategic long term thinking than most governments or industry officials have been able to do to date. Certainly one major issue now is that lessons of 20 years ago are being painfully "relearned" so that fuel is added, rather than reduced, from the softwood fire. It seems to us that two efforts could be undertaken in this respect, the decoupling of environmental concerns with the softwood dispute. While understandably concerned about using whatever legal levers they find at there disposal, it appears that decisions on the part of some BC environmental groups has caused more problems (including heightened distrust) than it might have assisted in solving. Second, considerable misunderstandings along side increasing complexity have rendered those with expertise greater power, which has simultaneously reduced transparency and common understandings, as experts on all sides of the question debate over who is correct, while the public defers to the arguments of those who purport to represent their interests. We propose, therefore, that increasing efforts to address these issues analytically, and to separate them out from other aspects of the dispute, would reduce misunderstandings increase transparency, thus separating out real differences from unsubstantiated assertions. As we discuss below, that efforts to develop credible research perceived as such on both sdies of the border, could go along way to reducing some of the fuel from the softwood fire. We therefore oberve that:

- There is the need to create widely accepted and shared understandings about some of the peripheral issues now intertwined with the Canada-US softwood lumber dispute

Canada's efforts to develop a global forest code

The longstanding debate over a global forest agreement can be viewed as a classic example of the limitations of strategic, short-term thinking as a driver of global-scale negotiations. From the Earth Summit in Rio to the present day, considerable energy and resources have been expended debating the desirability of a legally binding global forest instrument. Canada and other export-dependent countries have supported a legally binding agreement in order to ensure access to environmentally sensitive markets through the standardization of environmental goals (which will presumably serve to de-legitimize environmental protest). Industry interests might argue that a "race to the top" will occur if other countries were required to raise their environmental standards to match those of Canada. ENGOs, meanwhile, have opposed a legally binding instrument fearing a global-scale "race to the bottom", i.e. the creation of inadequate global environmental standards that would legitimize a degradation of legally acceptable forest practices. The result, in short, has been a process largely "stuck in neutral" with no sign of action in sight.

The decisions of the post-Rio governmental forestry deliberations have been limited to discussions about how to implement Agenda 21 and the non-binding Statement of Forest Principles. This in turn produced

some 270 “proposals for action” that have remained simply proposals or hortatory statements about the nature of sustainable forest management. Some progress was made in promoting voluntary regional Criteria and Indicator processes as well as National Forest Programmes. However, there is a lack of evidence of any coordinated effects from these discussions that can be easily linked to either an increase or decrease in domestic or international environmental forestry standards.

There are a number of important ways in which the former could be accomplished. One response to this lack of forward movement, has been to take move the center of negotiations elsewhere. This explains the development of non-state based forest certification as well as regional, issue-specific processes focused on illegal logging (both alternatives to be summarized below). Furthermore, a large and growing number of other environment and trade instruments, agreements and processes have addressed various issues of relevance to sustainable forest management.

This diversification of instrument types, however, contributes to a scatter shot approach to addressing global forestry problems. For this reason among others, governments have continued to participate in a succession of global forestry forums. If the existence of such a forum is taken as a given, therefore, what perspectives and strategies might contribute to its increased effectiveness?

There have been two central, substantive sticking points that have remained largely unaffected by fourteen years of heated negotiations. The first is the issue of North/South transfer of finance and technology. As long as global forestry agreements impose greater costs on Southern countries then the South will likely continue to demand substantial compensation. Southern countries, furthermore, claim an inherent “sovereign right” to exploit their natural resources in the same manner that enabled the North to achieve its advanced technological development. If this is so, then it is fruitless to propose, within a consensus-based environment, solutions that give countries such as Canada a market advantage at the expense of their Southern competitors.

The second issue is the question surrounding whether any binding global forestry agreements will result in a race to the top or the bottom of environmental governance. For environmental agreements to win popular support and reduce the risk of costly protests, they presumably must convince environmental interests that their concerns are being effectively addressed.

In addition to these substantive issues, there are strategic challenges caused by the resistance of a few key countries—most notably the US and Brazil—to any form of binding commitment or even the expression of voluntary commitment to specific forestry goals. Any future strategies need to recognize and address this well-known and time-tested international dynamic.

In discussing the way forward, this paper does not claim to hold the key to overcoming the above substantive and strategic challenges. Nevertheless, it does suggest that longer term thinking and a greater investment in finding win win solutions may facilitate future progress. The following recommendations provide just a few examples of how community-oriented strategies might play a role in overcoming the current global impasse. We therefore observe that:

- ***The institutionalization of stakeholder participation and consensus building in the development of substantive voluntary codes and/or legally binding forest agreements is a prerequisite to moving international negotiations forward***

Since NGOs have been a major driving force behind international environmental agreements, and since they are a critical component of the “social license” for such agreements, then it is necessary to enlist

their active participation and invest in addressing their concerns. This can be done at the domestic as well as international levels. Canada's global level strategies may be more effective if they are based on proposals supported by a wider range of domestic-level forestry stakeholders. For example, if Canada's long term goal is to create a legally binding forest instrument, then the first step might be to build trust and support for the proposal within Canada's own borders. We reason, moreover, that such innovations as a "pilot" addendum to the forest code, including North/South partnerships, results-based targets and monitoring of impacts might go along way to building this trust.

One key task of the February 2006 UNFF 6 session is to work on the development of a global forest code. Given the concerns of a few key countries, this code will likely be limited to generalized statements not linked to any coordinated action. This inaction will be further reinforced if Northern countries continue to refuse Southern requests for a Global Forest Fund. Perhaps one way past this impasse is to try a smaller, pilot-level approach involving a subset of developed and developing countries interested in setting specific performance targets and committing funds, either to a common pool or in the form of partnerships, as necessary to aim for those targets and monitor the results. Any demonstrated successes in this endeavor may promote a "California effect" with an increasing number of countries choosing to participate. For these reasons it is hard to envision a future on international forestry agreements that does not institutionalize "common but differentiated responsibilities"

The Southern country proposal to institutionalize "common but differentiated responsibilities" (an idea accepted with the Kyoto Protocol) represents a logical decision rule that addresses the differing resources and capacities available to developed versus developing countries. Furthermore, it allows developed countries to demonstrate a sincere desire to increase their own environmental performance rather than use global agreements to legitimize the status quo.

In sum, progress in addressing the deep-rooted problems of global deforestation and forest degradation is unlikely to occur if the primary focus of key countries remains fixed on short term economic interests. Rather, it requires the recognition of fundamental North/South inequalities, as well as a willingness to put environmental and social concerns on an equal footing with economic considerations. This most likely would result in significant short term costs. Unlike the short term strategies employed thus far, however, it also holds the real possibility of achieving critically needed future dividends. We observe, therefore, that incorporating forestry standards into existing international trade agreements could result in win win gains. This strategy is unlikely to be pursued any time in the near future. However, this would hypothetically include a comprehensive effort by the WTO to detail in its trade rules the conditions under which forest products ought to be harvested before they can enter the global liberal trade regime.

In the meantime, there are more targeted and focused efforts that, while not nearly as powerful as a global agreement, are more likely to be implemented and could pave the way for greater global efforts.

Combating Illegal Logging: the FLEG processes

In the early 2000s, a new series of issue-specific regional forest dialogues began to emerge that were focused expressly on the problem of illegal logging. First led by the US in partnership with the UK, these new Forest Law Enforcement and Governance (FLEG) processes promised to be significantly more action-oriented than the UNFF. Starting in 2001, FLEG processes quickly spread across numerous world regions, starting with the Asia and Pacific FLEG, followed by the Africa FLEG, then the Europe and North Asia FLEG and the EU Forest Law Enforcement, Governance and Trade (FLEGT).

Taken at face value, these FLEG processes appear a model venue that, by bypassing the stalled UNFF, may successfully promote a global California effect by raising environmental forestry standards worldwide. [†††] Through the FLEG process, industry, ENGOs and government actors, consistent with their diverse short term interests, have rallied together around the need to reform forestry in developing countries and countries in transition. Industry interests oppose the illegal wood trade for economic reasons including its negative effect on global wood prices, environmentalists are concerned with the environmental and social effects of illegal logging, and government concerns overlap with those of industry and/or ENGOs in various ways depending on the national politics of each country in question.

In terms of reversing global forest degradation, however, the FLEGs have yet to prove their mettle. A fundamental challenge lies in the very inequality of global economic development that has driven the problem of illegal logging in the first place. The growing economies of Asia and Latin America, for example, provide relatively indiscriminate markets for wood products. This avenue for short term economic gain allows industries and corrupt government officials to continue to profit from illegal practices in forest product production, processing and/or trade. Furthermore, if efforts to curb illegal forest industry practices dramatically reduce the profitability of all logging ventures in lesser developed countries this could exacerbate rural poverty and other environmental and social problems associated with under-development.

From this latter perspective, it is critical once again, that countries in relatively strong economic positions provide adequate support to lesser developed countries to mitigate the potential perverse effects of multi-lateral environment and trade agreements. Fortunately, there are already examples of such collaboration. At the government level, spurred by Europe's reliance on wood products from legally questionable sources, the EU initiated its own Forest Law Enforcement, Governance and Trade action plan (FLEGT). This plan, prepared with the active involvement of diverse non-governmental stakeholders, introduced the idea of bi-lateral producer-consumer country partnerships. These agreements incorporate potential economic incentives for producer countries by promising both economic aid and trade opportunities with consumer countries in exchange for the development of legality licenses for wood products that meet agreed upon bi-laterally negotiated standards. These partnerships address the issue of national sovereignty by allowing each producer country to develop their own national legality standards in collaboration with their consumer partner.

Considerable innovation has originated from non-governmental actors as well. Both ENGOs and industry have developed mechanisms for rewarding individual forest companies that undergo third party legality verification. Of these efforts, the new governance mechanism known as "step-wise" certification is perhaps the most comprehensive and far reaching. The concurrent growth of "full service" forest certification in Northern countries with step wise certification in the South serves as an example of "common but differentiated responsibilities", a concept long advocated by Southern countries within intergovernmental negotiations.

In sum, the pursuit of short term self interest was a critical catalyst in propelling illegal logging into the global spotlight. The support for coordinated action to address the illegal wood trade, furthermore, comes from a relatively wide range of both governmental and non-governmental interests. Some actors may

[†††] The global comparison of forest policies covered in an earlier section of this report clearly illustrate how many of the forest policies within key developing countries and countries in transition contain relatively high thresholds for environmental performance. The "California effect" in this context refers to the overall improvement of forest governance rather than simply an increase in regulatory requirements.

hope that the "California effect" will be adequate and sustainable, whereby short term interests alone will resolve this problem. However, many ENGOs and some government interests insist that a broader vision is critical to address the crisis of global forest deterioration and prevent further irreparable damage to the world's forests and forest dependent communities. This broader, more community-based vision would argue for significant investments in sensitizing global wood products markets and creating economic opportunities and alternatives for lesser developed countries.

Based on these conclusions, therefore, we provide the following examples of actions that could be taken to accelerate progress in the global campaign against illegal logging.

- ***Increase Canadian investments in FLEG processes***

To date, Canada has restricted most of its efforts in FLEG processes to the East and North Asian region. Given the current stalemate over a global forest convention, government and industry interests might consider focusing more attention on other FLEG processes as well as a means to ratchet up global environmental policies. ENGO involvement, meanwhile, is critical to ensure that these processes are not used simply to legitimize the status quo among developed country participants.

- ***Partner with other countries in multi-lateral trade agreements, develop procurement policies and explore other demand side reforms***

North American interests would further contribute to a "California effect" if they would follow the EU example and place more emphasis on demand side reform. US wood product imports certainly dwarf those of Canada. While Canadian demand side reform might therefore have a lesser impact, it should also be much easier to achieve. Should producer and consumer countries succeed in developing voluntary partnership agreements via the UK model or some other method, Canada could join such agreements and form a tri-lateral or multi-lateral partnership. Meanwhile, industry and ENGOs in both the US and Canada can continue to support demand side reform through innovative partnerships as well as adoption of forest certification and its accompanying procurement policies.

Climate Change

Our review above revealed that the majority of actions on climate change thus far have been limited to short-term, self-interested activities with no-to-little incorporation of long-term strategies. Climate change will pose great uncertainty in daily decisions, from planning management plots to selection of planting stock, and forest managers, industry, environmental groups, and governments will have little choice but to collaborate in more long-term strategic thinking if ecosystems and livelihoods are to be sustained in a changing climate.

In an effort to move all climate actors forward in embracing long-term strategic behavior, we propose the following three recommendations. They are not comprehensive, as there are numerous steps industry, environmental, and governmental stakeholders can take to mitigate and adapt to climate change. However, if these three recommendations were adopted, they would significantly advance Canada's position -- including its provincial governments, industry, forest managers, and civil society – in confronting global climate change. We therefore observe that it is critical to:

- ***Develop a post-2012 climate policy with long-term binding emissions reduction targets***

As mentioned above, the Kyoto Protocol's first commitment period ends in 2012, and Canada has yet to commit to future reduction plans beyond this year. Creation of a policy – either nationally or by leading an international effort to do so – will not only give security to investors, project planners, and forest

professionals, but it will also address the long-term nature of the climate change problem. For example, the Pew Center on Global Climate Change engaged in a multi-stakeholder, international dialogue with members of industry, government, and civil society and developed several policy paths forward for a post-2012 climate effort. For example, some elements that could be folded into a future policy may include long-term goals that are more true to the long-term nature of the climate change problem; adaptation assistance and development of robust adaptation strategies; continuation of market-based credit trading with the potential exploration of modifying target types (e.g. intensity targets or conditional targets that are tied to compliance costs, for example); sectoral approaches (in lieu of our current multi-sector approach) that potentially advance policy more quickly, as fewer actors are involved in decision-making; policy-based approaches in which national policies' impacts are measured and are used to meet international goals; and technology development and research collaboration with long-term planning horizons.[‡‡‡] If any or all of these elements were adopted in a post-2012 policy, Canada would be well on its way to becoming a long-term strategic thinker, resulting in win wins for all climate actors involved. For these reasons, a forward thinking national adaptation program seems a logical next steop in addressing these issues.

As a result of thermal inertia and the lag of climate impacts, as well as Canada's vulnerable geographic location, Canada should develop a national, coordinated adaptation program that identifies research needs, i.e. specific impacts on vulnerable populations and ecosystems, and adopt a precautionary approach to prepare for future climate effects. For example, infrastructure that withstands climate impacts should be developed; protected areas and managed forests should be managed for a changing climate; robust invasive species and fire plans should be bolstered; among other long-term strategies. Ideally, lessons learned in Canada could be transferred to developing countries, which are more vulnerable as a result of their resource dependence and low adaptive capacity. Moreover, Canada could offer development aid to assist other countries in climate change adaptation projects. We observe, therefore, that:

- ***Technology development over climate change mitigation must be increased***

In an effort to reduce its emissions footprint, Canada should become a leader in clean technology research, development, and deployment. In addition to supporting the adoption of efficient industrial technologies and the advancement of public transportation within and among cities, Canada should remove subsidies that disadvantage renewable energy technologies. Also, Canada should assist those countries that are rapidly industrializing, such as India and China, in the deployment of efficient and low emitting technologies, and create research partnerships to spur technology innovation in industrializing nations.

Forest Certification

Forest certification has provided the world of environmental governance with a startlingly policy innovation because it turns to, in the first instance, the market place, rather than governments, for policy making authority. Our review above revealed that though the challenges are many, the benefits and rewards in institutionalizing certification globally, and in using this to implement sustainable forest management, may be extremely powerful. What we do know is that Canada's forest products industry has, through understandable strategic self interests, championed forest certification in the ways that few

[‡‡‡] Pew Center for Global Climate Change. "International Climate Efforts: Beyond 2012." Report of the Climate Dialogue at Pocantico. Arlington: Pew Center for Global Climate Change. November 2005.

other sectors have done. They require that all members be certified according to the FSC, CSA or SFI programs, and they are also promoting the adoption of forest certification globally. Despite these promising developments two significant challenges remain. First, there is profound disagreement about the effectiveness of the different forest certification programs now championed in the North, with the vast majority of environmental groups supporting the more stringent FSC program, and industry and forest owners supporting their own more flexible "home grown" programs. These programs have been rapidly consolidating under the Program for the Endorsement of Forest Certification (PEFC) in a process referred to as "mutual recognition". PEFC was originally created in Europe as an alternative to the FSC. These forest owners felt that the FSC infringed upon national sovereignty and took too much decision-making authority away from the forest owners responsible for implementing it. Second, forest certification has not (yet) been supported in a significant way in the tropics, despite a decade of concerted effort, and despite the tropics being the original concern of many of the originators of the FSC.

For these reasons we argue that a redoubling of effort has to be achieved to gain agreement among existing supporters of forest certification on the path forward. Existing efforts to promote increased cooperation among programs have failed for a number of reasons. First, there was the belief on the part of environmental and social groups that the non-FSC programs were created to either conform to the status quo, or limit the behavioral impacts that FSC supporters feels are required to address global forest deterioration. Second, many non-industrial forest owners, deeply affected by what they feel to be unfair critiques of their harvesting practices, came to view FSC decision making procedures as unable to respond to their needs. For these reasons one approach would be to reach an agreement among supporters of forest certification that all programs will end up in the direction of dramatically improving global forest management, including explicit and required targets; but that such agreement must occur only after all parties have worked out acceptable decision-making procedures. Such efforts are prerequisites for markets to eventually require, or embed certified forest products, in decision making processes, which, we believe, could pave the way for its adoption in the global south, all the while sidestepping the almost insurmountable problems noted above in achieving a binding global forest agreement.

We offer, therefore, that:

- Environmental groups and social organizations operating within the FSC must redouble efforts to develop widely accepted policy making processes

- In addition forest owner and industry groups must redouble efforts to agree to clear and specific "sustainable forestry results" that forest certification, once institutionalized, must ultimately provide

We make this recommendation in two parts because we know that despite their best intentions, "gold" or standards for sustainable forestry management will be evaluated, everything else being equal, by profit maximizing firms, in the short term, as being against their economic self interest. Hence, standards set too high in the short term will knee cap the long-term potential. Indeed, we note, following Bernstein and Cashore (Joint Statement by Philippines and Indonesia Regarding Strengthening of the FLEG Process 2005) that once certification is institutionalized so that it is a globally accepted requirement, then standards can be "continually improved" without penalizing those who are supporting it.

We also note that such a recommendation is in the economic self interest of BC firms, and environmental interest of BC environmental groups, because it may allow market-based certification to kick start the California effect in ways that intergovernmental agreements could not. That is, since BC firms are relatively highly regulated through the public policy process, these firms have an economic self interest in ensuring that their competitors are subject to the same regulations. And unlike Vogel's assumption that such an approach requires environmental groups and firms to lobby governments to increase rules

elsewhere, it may depend on market based efforts, and the ability of firms and environmental groups to reflect on the "win win" long term outcomes certification could offer.

To be sure, we are not arguing that such an approach exclude the South until such time as it is institutionalized in the North. Quite the opposite – the promise of forest certification is that it provides an institutional arenas that gives as much voice to the South as the North. Rather, we hypothesize that in generally, the shorter road that firms in the North have to travel to meeting certification standards gives them a strategic self interest in supporting certification in ways that illegal loggers, and "cut and run" companies in the tropics (Dauvergne 1997, 2001), may not have.

Institution Building Recommendations

Based on the above review and concluding analysis, though much more research needs to be done it is clear that there is an increasing gap between the accelerating pace of global change, and British Columbia's and Canada's ability to respond to the resulting new challenges. Low cost competitors in Russia, China, and elsewhere amidst increasing tropical deforestation, habitat loss, species destruction, and the widespread impacts of climate change have resulted in an increasing complexity of challenges and opportunities facing those who care about shaping British Columbia's future in the world economy. Forest degradation, community development, and the development of a sustainable forest sector are now so inexorably intertwined, the report finds, that it is virtually impossible to analyze one outside of the other. The way out, we suggest, is for the creation of new "forward looking" institutions at the provincial, bi-national, and global levels designed explicitly to address these questions. We envision the creation of three interconnected institutions: a BC forest policy center for strategic analysis; a Canada-US Forestry Commission, and a world forest organization for multi-stakeholder dialogue, research and monitoring that would provide guidance to existing decentralized and fragmented multi-lateral forest-related processes.

1) Create a BC Forest Policy Center for Strategic Analysis

This Center would be devoted to non-partisan research and dissemination of BC's forest policies in a national and international context.

In addition to the identification and comparison of existing forest policies, the Center would also examine environmental, social and economic trends in the BC forest sector within an international context. The topics covered would range from the study of BC's changing position in the global marketplace, to the examination of innovations in multi-stakeholder policy-setting and First Nations partnerships, to the assessment of a broad range of environmental policy issues including biodiversity protection and the mitigation of and adaptation to climate change.

The Center's research could also be conducted in collaboration with other similar Centers worldwide, and could involve dialogue with governmental and non-governmental stakeholders as part of a global network for policy learning. As part of a global network of policy research, this Center would help to promote "ratcheting up" of global forestry standards in an effort to reward, rather than punish, the most environmentally sensitive policy regimes, by making policies more transparent and broadly accountable.

2) Create a Canada-US Forestry Commission

The purpose of this commission would be to assess important questions at the heart of, or margins of, the softwood dispute. Such questions would include an assessment of each countries environmental

regulations so that charges on both sides of the border about each country's environmental regulation, made in the heat of a trade dispute, might be given dispassionate and analytical attention. Such a commission should employ natural, economic, policy scientists from both countries, and from elsewhere, so that the data they produce could be assessed and addressed as legitimate knowledge.

Moreover, the creation of such a commission could also redirect the interests of many North American forest companies towards the challenges that they collectively face from often less regulated competitors in other parts of the globe. It could also reduce the incredible diplomatic tension that the dispute has created between Canada and the United States.

3) Create World Forest Organization for Multi-stakeholder Dialogue, Research and Monitoring

This World Forest Organization would be devoted to multi-stakeholder dialogue, research and monitoring addressing the primary challenges and opportunities of global collaboration on sustainable forest management. This body would be independent but supportive of existing forest-related intergovernmental processes and would involve the active participation of the wide range of forest stakeholders, ranging from government to industry, to NGO, academic, forest-dependent community and indigenous interests.

Global forest negotiations have stalled regarding the central challenges to sustainable forest management. Meanwhile, a plethora of forest-related instruments, agreements and processes have attempted to address various elements of SFM with often little coordination between them. This organization would provide a politically neutral arena focused on substantive forestry issues from a holistic perspective.

The organizations' primary function could be the collaborative development of a monitoring framework for measuring progress towards global forest health. This would include coordination with existing agencies, institutions and processes in the general monitoring of trends. In addition, the organization would develop a system for results-based effectiveness monitoring of inter-governmental initiatives and certification systems and their progress in addressing key global forestry challenges. This emphasis on substantive monitoring would serve to ground global dialogue in key forestry challenges, thereby shifting focus away from short term interest-based agendas. A pre-requisite for achieving effective collaboration, however, would be the concurrent monitoring of the social and economic policy impacts on developing country participants, along with the calculation of adequate compensation.

This process, in sum, would institutionalize "ratcheting up" through multi-stakeholder agreement regarding where global forest governance-- from inter-governmental processes to forest certification-- is headed in the long term. It would also be grounded in the market realities of the short term, realities that must be addressed along the path to long-term community based decisions.

This organization may or may not be directly involved in policy implementation. At a minimum, it would serve as a clearinghouse on global forest policy development, providing guidance to existing forest-related governmental and non-governmental processes.

In sum, the above institutional recommendations are designed to address key governance challenges identified in this paper. To be sure, we are not offering a specific design for each institution, but rather calling for BC forestry professionals, government, industry, and environmental groups to engage in individual and collaborative strategizing as to what these institutions might look like and how they might

be developed. Existing and future uncertainties are sure to make policy making choices and impacts increase in complexity. As they grow in complexity they will also grow in urgency given the immense environmental, social, and economic challenges and opportunities facing our planet.

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[1] Our thanks to David Cohen for this point, as well advice on this section in general

[2] Simon said that -"in essence then, rational decision-making involves the selection of the alternative which will maximise the decision-maker's values, the selection being made following a comprehensive analysis of alternatives and their consequences"

[3] Lindblom identified four positions in this continuum including "blundering", "simple incremental" (analysis involves analysis limited to consideration of alternatives which are only incrementally different from the status quo),

"disjointed" (involving limited analysis of a few understandable alternatives) to "strategic analysis" (carefully chosen alternatives are analysed). Lindblom did not include Simon's "comprehensive rational" category as he argued it could never be obtained See Howlett and Ramesh for lengthier discussion.

[4] This section draws on (Cashore and Vertinsky 2000)

[5] The key piece of forestry legislation governing Oregon is its 1971 *Forest Practices Act*. The precise timing of the 1971 Act can be traced to the US Congress' deliberations and eventual enactment of the *Clean Water Act* of 1972.

[6] Slight changes made in 1987 required the Department of Forestry to collect inventories of threatened and endangered species and "ecologically and scientifically significant" sites. If, after conducting this analysis, the Forest Practices Board decides that forest harvesting may conflict with these resource sites, the Board must then "consider the consequences of the conflicting uses and determine appropriate levels of protection" (ORS 527.710(3)(b)). Rules have tended to focus on limiting harvesting during reproductive seasons or specifying areas around particular sites in which no logging can occur. In Washington, any forest practices on critical habitat lands require an environmental assessment under Washington's SEPA legislation. The 1987 Wildlife Code creates a process whereby the Director of the Department of Fish and Wildlife can ask the Wildlife Commission to list a species if it is "seriously threatened with extinction" though there is no timeline in the listing process. The Forest Practices Board has the power to designate critical habitat areas for individual species.

[7] Although the Washington state Department of Environmental Quality does have a role in shaping forestry practices, this situation is not repeated in Oregon.

[8] See (Vancouver Sun 1994; British Columbia. Office of the Premier 1994; British Columbia. Commission on Resources and the Environment 1994, 1994)

[9] See (Scientific Panel for Sustainable Forest Practices in Clayoquot Sound 1995, 1994)

[10] The "Joint Solutions" project was originally begun in 1999 between environmental groups (ForestEthics, Greenpeace, RainforestAction Network, Sierra Club of Canada-BC Chapter) and forestry and forest products firms (Canadian Forest Products, Catalyst Paper Corporation, International Forest Products, Western Forest Products, Weyerhaeuser)

[11] This data draws on Cashore and McDermott (2004)

[12] Canada US disputes over trade have historical roots well before this time, but their causes and explanations are arguably quite different than the modern day version.

[13] US trade law provides for a "preliminary" ruling in the hopes that such a decision will encourage a negotiated settlement.

[14] Gus Kuehne of the Coalition, quoted in Whitely (1987).

[15] .From Groen (1994) interview with Jack Kempf, August 29, 1990.

[16] From (Cashore 1988: 143), originally quoted in Saturday Night magazine, July, 1987

[17] There is no doubt that the truce also helped the Bush administration efforts to sign a free trade deal, as they were notified by Congress, following successful lobbying by the US coalition, that they might derail the agreement if softwood lumber was still on the table.

[18] Frank Oberle, former Minister of International Trade, is quoted in Groen (1994), "There's no doubt what happened here. We, that is the federal government, accommodated nobody else but the BC Government, who had lost their nerve, who did not want to take the chance - and for good reason...This has been a neat arrangement for the province. In the first year we collected the tax, we sent them a cheque for $320 million....This was not a federal initiative...They came up with this idea, which then on behalf of British Columbia we sold the Americans on.".

[19]The CFLI initiated a series of "converting" efforts focused on the US Congress. Their intention was an effort to convince the US public and Congress that not only were Canadian provinces subsidizing their forest companies through low resource rent rates, that Canadian industry was benefiting from lax environmental regulations. Key Congressmen took up this argument. For example, Congressman Wyden's office solicited the help of two BC-based groups: the Western Canada Wilderness Committee (WCWC) and the BC Sierra Club in a highly public and political fight with Canadian officials over the countervail issue. Citing official letters from these groups, Wyden asserted that there is a direct relationship between this long-standing, heavy subsidization of Canadian stumpage, and resulting poor forest practices in British Columbia. He quoted one BC environmental official as saying that his group "believes that the under-pricing of timber has resulted in a BC-wide logging horror show" (Foy 1992) and another as arguing that the "underpricing" of Canadian timber "does not provide opportunities for the most efficient and best use of timber" (Chow 1992). In a letter to Canadian ambassador Burney, Wyden (1992) argued that: "Neither am I startled by criticism of Canadian forestry practices by US-based environmental groups. What does draw my attention is criticism from these western Canada environmentalists who strongly disagree with your assertions that BC practices good forestry, and that there are no give-aways to Canadian wood product manufacturers in the pricing of provincial stumpage" The efforts to bring in the environment at this juncture were not to affect the adjudication process, which, as Burney (1992)responded to Wyden, do not take into account different levels of environmental protection in each country. Rather, it was to maintain political pressure on the ITA determination process, and to prepare lobbying efforts aimed at once again changing US trade law.

[20] See Generally van Kooten (The Preliminary Meeting of the Task Force and
Advisory Group (May 2002) 2002) who argues that "…Rather than a countervail duty or export tax, SLA employed a quota that provides a large windfall (quota) rent to Canadian lumber producers in addition to extra quasi-rents to U.S. producers, all at the expense of U.S. consumers.

[21] (In speaking of country "motives", all of the caveats already covered in this paper apply multi-fold. The process of assigning a single, coherent "motive" to a country involves collapsing together numerous complicating factors, such as internal conflicts, differing motives between domestic political parties and government agencies, not to mention differences in the motives and personalities of individual country delegates. Nevertheless, the positions that various countries had adopted by the mid 1990s in global forest negotiations, present the distinct the possibility that issues of economics and trade, rather than environmental concern were the dominant force in government decision-making. Further supporting this case, among the most adamant of the negotiating parties are those countries with an active and powerful forest industry, including Canada, the US, Malaysia, Indonesia and Brazil.)

[22] The FSC decided to allow national and regional standard-setting to adopt the FSC P&C to incorporate regional stakeholder concerns and to "ensure the consistency and integrity of standards" in every country or region. In large federated countries such as the US and Canada this led to the development of sub-national standards, with eleven such processes established in the US and nine in Canada. The Canadian regional processes are unique among countries in that they include a fourth chamber in the decision-making structure, known as the Indigenous People's Chamber.

[23] Originally, there were two chambers, an environmental and social chamber with 75% of the votes and an economic chamber with 25% of the votes. However, the balance has since been changed to three chambers each carrying equal weight in FSC policy decisions. In addition to the division along interest group lines, the FSC has also distributed votes evenly between Northern and Southern members in order to ensure more globally equitable decisions.

[24] Originally the FSC created two-chambers – one with social and environmental interests that was given 70 percent of the voting weight, and an economic chamber with 30 percent of the votes. There are current three equal chambers among these groups with one third of the votes each. Each chamber is further divided equally between North and South.

[25] The PEFC Council's membership comprises 25 National Governing Bodies, 19 of which are European. Authority to endorse these schemes rests with the PEFC Council, 13 of which have been endorsed as of January 2003. The US SFI, Tree Farm and the Canadian CSA became members of the council in 2000, while the CSA achieved the additional step of formal endorsement by the PEFC in July 2005. The PEFC provides for single, group and regional

forest certification. Regular audits are conducted of forest owners participating in a group certification. Under regional forest certification, an applicant's region must be certified by a third party as meeting the requirements of the national standard. Landowners within a defined geographical area that has been granted regional certification status can apply to be recognized participants in the PEFC system only after committing to implement the national performance standards. Once the regional certification is complete and the landowner demonstrates his/her individual commitment to participating in the program (that is, he or she is committed to complying with national criteria), forest owners can apply to the PEFC Council or the relevant PEFC National Governing Body acting on behalf of the PEFC Council to obtain permission to use the PEFC logo. The PEFC offers a chain of custody certificate, based on "physical separation" of the certified product from non-certified products, or based on a "percent in, percent out" type approach.

[26] In the case of the FSC and CSA, a mandatory auditing process is conducted by external auditing companies. The SFI originally developed looser verification procedures, but voluntary independent third party auditing is now the method of choice for most companies operating under the SFI. Similar verification procedures exist under other NSMD systems, such as the case of socially and environmentally responsible coffee production, where producers are audited to ensure they are following the program's rules, and a label is given to firms that sell this certified coffee (Transfair USA 2000). Here, the desire to be seen as a good corporate citizen is linked to a market advantage – Starbucks and Peets can sell their coffee as socially responsible, allowing them to maintain or increase market access and perhaps to charge a price premium compared to what other coffee retailers are able to charge (Seattle Post-Intelligence Staff 2000).

[27] This section draws directly, and indirectly, from Cashore, Auld and Newsom (2004).

[28] This group included, the Confederation of Canadian Unions, the Pulp, Paper and Woodworkers of Canada Union, the Union of B.C. Indian Chiefs, the Canadian Environmental Law Association, Greenpeace Canada, and a number of others.

[29] This is pointed made by (personal interviews and Stanbury 2000), but it also came up during personal interviews with numerous industry officials (see Appendix 2 for list of interviewees)

[30] Personal interview, senior official, Canadian Pulp and Paper Association, Montreal, Canada, January 24, 2000

[31] While the very core goals of the FSC meant that it could not recognize competing programs, the reverse was true regarding forest company and landowner support for the FSC. That is, it did not matter for the FSC whether forest companies that agreed to operate under its rules also operated under other certification systems rules. What did matter was that retail companies only supported the FSC -- the combination of retailers demanding FSC and companies agreeing to abide by its rules was what it sought -- while the FSC competitors such as CSA sought the reverse -- they wanted retailers to include the CSA in their certification procurement policies and did not want its company supporters to support the FSC.

[32] Personal interviews, senior officials, Haindl, Augsburg, Germany, May 4, 2001

[33] Francis Sullivan with the WWF clarified the threat being posed by the WWF 95 group when he was quoted saying: "Canadian forest companies won't be able to sell to 24 of their biggest UK customers next year if they can't prove their products come from sustainably managed forests. The firms have aligned with the Forest Stewardship Council, which was established last year to accredit organizations around the world so they can "eco-label" products. That will reassure consumers wood and wood products come from known, well-managed sources (Vancouver Sun, April 9, 1994, p. H4. cited in Stanbury 2000, 94)."

[34] See Stanbury (2000) for an excellent account of the ENGO-campaigns occurring through out the 1990s.

[35]Ninety five percent of forests logged in BC in 1997 were in old growth forests (McKinnon cited inGreenpeace 1997). Primary forests are considered areas where industrial logging has not yet occurred. Depending on the definition of old growth, primary forests may not qualify. If 120-years was used as an age threshold to delineate the area of old-growth forests then approximately 43 percent of the province's forests would qualify. The remaining 57

percent of the forested landbase is split into young forests resulting from natural disturbance, 41 percent, and harvesting activities, 16 percent (Ministry of Forests British Columbia 2001).

[36] Personal interview, official, Canadian High Commission, London, England, April 25, 2001

[37] Stanbury (2000,101) offers an example from an ad the Forest Alliance published in the UK-based Daily Telegraph, that stated, "Greenpeace is not telling you the truth about the state of British Columbia's forests, or what really goes on here. It is time for facts, not half-truths and innuendo."

[38] The "Stumpy" tour is one notable example. Greenpeace UK took a 400-year-old Western red cedar stump on tour in Europe to raise general public and customer awareness about the types of trees being harvested in BC. This forced BC forest companies to send representatives to the UK to mend the damage done to BC's reputation (Greenpeace UK 1998).

[39] Personal interviews, official, Western Canada Wilderness Committee, Vancouver, Canada, September 20, 2000 and official, Greenpeace, Vancouver, Canada, October 5, 2000

[40] Personal interview, senior official, British Broadcasting Corporation Magazine, London, England, July 3, 2001

[41] They contracted SGS, a UK based FSC-accredited certifier, to perform a pre-assessment and develop an interim checklist for FSC certification in BC, as at the time there was no endorsed FSC-BC standard.

[42] Personal interviews, senior official, Forest Alliance of British Columbia, Vancouver, Canada, September 19, 2000 and senor official, British Columbia Council of Forest Industries, Vancouver, Canada, September 1, 2000

[43] Personal interview, official from BC forest industry (see Appendix 2).

[44] Personal interview, official, Forest Stewardship Council British Columbia working group, Nelson, BC, Canada, August 8, 2000.

[45] This was important because the FSC auditor indicated that without this commitment, it would have denied the certification.

[46] Largely owing to the lack of FSC regional standards, and company decisions to wait until they were complete, the vast majority of certified land in the province was under CSA approval. As of August 2001, 8,148 hectares of BC forests were FSC certified (Certified Forest Products Council 2001). The total amount of forest certified with the CSA is over 4 million hectares (Canadian Sustainable Forestry Certification Coalition 2001)

[47] Some of these buyers also criticized CPPA for being too aggressive in promoting the CSA.

[48] The principle now states that "Management activities in high conservation value forests shall maintain or enhance the attributes which define such forests. Decisions regarding high conservation value forests shall always be considered in the context of the precautionary approach," (Forest Stewardship Council 1999).

[49] While there were a number of potential issues of "conflict" between the FSC P&C and BC's public forest policies [Haddock, 2000 #3557], these were open to adaptation whereas BC could not get around the issue of old growth forests. They were a physical reality that the BC companies and government had to contend with.

[50] With the exception of rules governing US national forest lands, BC's forest practices's code riparian harvesting rules are roughly equal to, or more stringent than riparian zones rules governing private forest land management in the United States (Cashore 2001).

[51] An internal FSC report, referring to tables in the draft standards, echoed these issues. "Table 1 specifies the thresholds for each category of stream/wetland/lakeshore. These thresholds are consistently higher than those required by the Forest Practices Code. This issue is not a significant one. Table 4 specifies the minimum budgets to be deployed at the Riparian Assessment Unit level. Utilization of this approach may result in buffer zones higher or lower than required by the Forest Practices Code and would require justification. The significant issue is that this approach, while innovative and creative is untested at large operational scales and creates uncertainty in terms of potential costs (implementation and impact on timber supply), and overall effectiveness of these measures (Italics added FSC Canada 2002)."

[52] The opposing view was raised in a number of personal interviews with environmental group officials (see Appendix 2)

[53] The other economic member of the steering committee was a small woodlot owner.

[54] Personal interview, official, Sierra Club of British Columbia, Vancouver, BC, Canada, August 2002

[55] One win win possibilities in general see Gunningham et al (1998)