



# THE FAILURES OF FOREST CERTIFICATION

AND THE IMPLICATIONS FOR THE PUBLIC WEALTH OF THE CANADIAN NORTH

BY ELIZABETH NICKSON



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*"Very few facts are able to tell their own story,  
without comments to bring out their meaning.  
The whole strength and value, then, of human judgment,  
depending on the one property, that it can be set right when it is wrong,  
reliance can be placed on it only when the means of setting it right  
are kept constantly at hand."*

*-John Stuart Mill, On Liberty, 1869*

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## EXECUTIVE SUMMARY

Today's all-out assault by the combined forces of Canada's powerful environmental movement on the so-called dirty oil of the oil sands has its precursor in recent history. The present environmental movement cut its teeth with its incursion into Canadian forestry, once the dominant resource extraction industry in Canada. Environmental activists, NGOs and foundations presented forest certification as the solution to the international campaign launched against the forestry industry in the 1990s. Certify forests, Canada's foresters were told, and the campaigns will stop.

The campaigns did not stop, and forest certification is proving to be destructive of the resource, the greater economy, the communities where working forests are located and forestry's once-critical contribution to the public purse. Further, evidence is beginning to show that the environmental model used by forest certification is destructive of the forest biosphere itself. As well, despite forest certification being in effect for almost 20 years, there have been few *independent* audits<sup>1</sup> of the success of forest certification, meaning existing problems have only increased.

This paper will show that the effect on forestry was a drawdown of the value of the resource and its wealth-creating effect of between 40 per cent and 60 per cent. For smaller private forestry operations, it is as much as

400 per cent. Certification, which was forced on a fully modern industry, has set forestry back a generation. Forest certification needs reform in order to restore Canada's forests to a state of economic and environmental health.

Currently, environmental NGOs are pressing certification onto the aggregate industry in Ontario. Given the campaign against pipelines, the oil sands and fracking, the certification model developed for forestry will be presented as a solution to "public" unrest, as well as to any future exploration and extraction in Canada's North.

This will occur at a most inconvenient time: when Canada needs to grow its economy in order to meet its debt and unfunded liabilities, particularly those of universal health care and the aging population. Based on a C.D. Howe Institute report by the former president of the Bank of Canada, David Dodge,

*The president of the Institute, Bill Robson, calculated the 'net unfunded liability' implied by population aging – promises to pay, mostly for healthcare, for which no funds have been set aside – at \$2.8-trillion. If nothing were done, he estimates this would entail an increase in annual expenditures of about seven percentage points of GDP: as much as the federal government collects every year in personal income taxes.<sup>2</sup>*

## INTRODUCTION

Canada has the third-largest forest in the world. It is also the largest exporter of forest products. The Canadian forestry sector's combined domestic and foreign sales are second only to those of the United States and in 2010 constituted a \$53-billion industry. Since the 1820s, starting with Napoleon's Baltic blockade, the forestry sector has been a substantial contributor to the nation's public purse, its economy and employment.

*Canada has 402 million hectares (ha) of forested land. Approximately 211 million ha of this huge forest is under active management. In 2010, the harvest was 142 million m<sup>3</sup>. This harvest supported a \$53 billion industry and 238,560 direct jobs.*

*Eighty-nine per cent or 188 million ha of the 211 million ha of managed forest is under active management, 87% of which lies in public ownership – owned and managed by the provinces in the long-term interests of the people. Thirteen per cent (25 million ha) is privately owned.*

*There are two categories of privately owned forest – 20 million ha of private woodlots owned by approximately 450,000 rural families and five million ha of 'industrial' forest land. ... [T]his forest land is owned by a variety of types of organizations, including forest products companies, pension funds, foundations, endowment funds and private investors.<sup>3</sup>*

By the 1990s, the forest sector in Canada, through the actions of activists in the Clayoquot Sound protest, had been actively targeted by international ENGOs and foundations that subsequently intervened in the marketplace in order to impose new social and environmental controls on forestry. Chief among these controls is Forest Stewardship Council (FSC) certification, which is an international system of certifying forests throughout the chain of production, ensuring that the wood is harvested in a so-called

sustainable manner. Sustainable Forest Management (SFM), a certification system created to compete with FSC certification, also recognizes the value and function of ecosystems. Increasingly from 1995, Canada's vast forests have been replanted with these ecosystem values in mind. At the same time, and in concert with ecosystem management and various thought-to-be-urgent species protections, ENGOs, land trusts, foundations and governments large and small have placed a substantial acreage of Canadian forests under some form of conservation, and it is far more than the bruited 10 per cent.

By the end of 2014, Canada had 53 million hectares of producing forest under FSC certification and control. There are two other certification programs: Sustainable Forestry Initiative (SFI),<sup>4</sup> which has 80 million hectares under supervision, and another 41 million ha certified to the requirements of the Canadian Standards Association SFM Standard. The Programme for the Endorsement of Forest Certification (PEFC Canada), which represents the interests of organizations in Canada that are certified to the PEFC-endorsed CSA and SFM standards, has reviewed and endorsed the CSA and SFI standards used in Canada.

## A DISCUSSION OF STANDARDS

Standards are the soft law of industry. They are generally reviewed and revised at five-year intervals, whereas provincial legislation and regulations are revised on a 20-to-25-year cycle. Standards address the steady improvement of understanding as science progresses and public values change. It is essential for industries to maintain a good reputation when managing public lands and selling the products abroad. Because of a general, free-floating mistrust of government and industry, the introduction of a standard and an independent audit ensures essential transparency and the continuation of public trust.

Equally, the fact that standards are revised on a short cycle helps keep them in line with public values.

The International Organization for Standardization (ISO) was established after the Second World War to facilitate international trade. The first products to be standardized were nuts and bolts for use in aircraft production and maintenance, meaning thread, diameter, length and hardness. The Standards Council of Canada (SCC) is Canada's representative on ISO. CSA (Canadian Standards Association) Group is the largest of five standards development organizations in Canada; it holds the secretariat for the ISO 14000 environmental management system standards (ISO Technical Committee 207).

There are several types of standards. Some of the best known ISO standards are Management System Standards designed to add discipline and rigour to management. Technical standards, such as those applied to toasters and heat pumps, usually deal with product safety. Prescriptive standards lay out exactly how to do something, such as protocols for scientific tests.

There are two ISO management system standards. The best known are ISO 9000 QMS – Quality Management System –

and ISO 14000 EMS<sup>5</sup> – Environmental Management System. In both cases, an organization, say a manufacturer, will set quality standards for a product – Lada level or Rolls Royce level. ISO 14000 will help improve management to produce their products to meet quality standards. The organization will then work to achieve and surpass these levels of quality or environmental standards for the processes, whether energy consumption, GHG emissions or water consumption per unit of production.

Then there are hybrid standards. CSA and SFI are hybrids that include some management system requirements and a list of elements to manage as well as general targets such as water quality and conservation, species protection and so on. FSC is a global program and CSA is applicable only in Canada. SFI is mainly applicable in the United States and Canada, and PEFC provides a framework for national certification schemes in 30 countries.

The standards administration system of the CSA developed its SFM standard, through the establishment of a 35 member multi-interest Technical Committee including; academics, conservation and consumer interests, government and industry. The framework of the CSA standard is the Criteria and Indicators (C&I) for SFM, which is approved by the Canadian Council of Forest Ministers (CCFM) and slightly adapted from the set of C&I developed by the United Nations Development Programme Montréal grouping of the Intergovernmental Process. This is the most legally founded set of requirements to guide the management of public forestland in Canada, since it is founded specifically on a policy decision of the CCFM and therefore, in Canadian law, rather than international law or a hybrid of the laws of two or more countries.<sup>6</sup>

The CSA Group Sustainable Forest Management System standard is the leading forest certification standard

in Canada and the first national sustainable forest management system in the world. First released in 1996, it is Canada's official national standard for sustainable forest management. For land to be certified to the CSA SFM standard, forest managers must follow six Criteria and Indicators of SFM, developed by the CCFM as part of an international process to create global criteria and indicators for sustainable forest management.<sup>7</sup> More forests are certified to the CSA SFM standard than any other national standard in the world. The incursions of the FSC and ENGO political pressure triggered the CSA SFM and SFI as alternatives to FSC.

There are two international forest certification programs: FSC and PEFC. FSC has a total of 183 M ha certified in 79 countries but has approved standards in only 30 of them. FSC and its ENGO supporters seek to establish a dominant/monopoly position in the forest products marketplace. PEFC has a total of 265 M ha of forest certified in 29 countries- all with PEFC endorsed standards. CSA and SFI are PEFC participants in Canada, and SFI and American Tree Farm System are PEFC participants in the United States. PEFC (CSA and SFI are participants in Canada, and SFI and American Tree Farm System are participants in the United States) is a "service provider" offering use of its standards to forest owners and industry. CSA and SFI have lists of elements that must be managed. In the case of SFI, 12 pages outline aspects of forest management: clean water, wildlife, riparian areas, unstable slopes and so on.

In contrast, FSC seeks a monopoly<sup>8</sup> so it can exercise influence over forest policy. It regularly issues papers on the failures and compromises found in PEFC. Criticism is not specific and detailed; it is systemic and virulently anti-corporate: *"Among the worst of these marketing schemes is the Sustainable Forestry Initiative, or SFI, which is funded, promoted and staffed by the very paper and timber industry interests it claims to evaluate."*<sup>9</sup> (Italics added)

FSC is low on management systems and strong on prescriptions; there are a full 109 pages in the most recent

National FSC United States standard.<sup>10</sup> The ENGO supporters of the FSC persuade industry to adopt its standard under penalty of trouble in the marketplace.<sup>11</sup> FSC'S most recent triumph, the 2012 Canadian Boreal Forest Agreement (CBFA) was engineered with substantial help from FSC and is planned along the principles it promotes.

At present, in Canada, 161 million hectares are certified: 41 million by CSA, 80 million by SFI and 53 million by FSC. For market protection, several forest licences are certified to more than one standard, meaning that the total net area certified, with the double counting removed, is 161 million hectares.



## THE HISTORY OF FORESTRY IN CANADA

In Canada and the United States, originally, the forest was generally used as a storehouse of value, providing heat, light and materials for dwellings. Indigenous peoples across the continent cleared land for agriculture – most notably in the East – and hunting. Archaeologists and anthropologists think that landscape alteration was common in the Americas long before the beginning of recorded history.<sup>12</sup>

As settlers arrived from Britain and France from 1600 to 1700, small-scale clearing for building materials, heating, cooking and farmland took place. Subsistence use continued through the 1700s, though a significant increase in forest clearing began. The sawmill industry started providing lumber for new towns. From 1800 to 1920, mining of the forest took place, without thought for growth capacity or regeneration, in order to provide squared timber for export to Europe and lumber for construction at home. Fortunately, this was on a small scale and limited to areas close to rivers, so the water could be used for transporting logs.

Starting in 1920, forestry became an industry, regulated by provincial governments and bent toward the needs of the pulp, paper and sawmill industries. Pulp and paper mills needed large quantities of wood on a 50-to-100-year planned lifetime of a mill. Banks investing in the forestry industry and shareholders required a secure supply of lumber. Provincial governments provided public land on long-term licences, but there had to be a management plan, forest inventory, growth and yield calculations and sustained yield management.

By the early 1960s, when the Canadian economy had recovered from the Second World War, Canadians wanted to use the forest for recreation, hunting, fishing and camping on a large scale. The needs of the public had to be considered, and some minor changes were made to management planning and operations. For instance, gates

on the logging roads were opened, so the public could enter the forest as a right rather than a privilege, a privilege formerly (in general) granted through acquaintance with the company woodlands manager.

By the late 1970s, a new management system called “integrated forest resource management paradigm” began to be developed in the B.C. Interior. Inspired in part by the idea of linking a thorough knowledge of forest history and past human disturbances to present-day vegetation patterns in forest ecosystems, the new paradigm was thought of, first, as “the folio approach”. When a licensee developed a forest management plan for a forest licence, the British Columbia Forest Service had to approve it. The Forest Service referred the plan to those in charge of freshwater fisheries, wildlife and wildlife habitat management and so on until approximately five to seven government agencies had a look at it and offered suggestions for improvement or approval.

The trigger for the concern of the environmental industry was the increase in harvest levels, which resulted from the use of smaller trees for pulp and paper. Technological advances meant that more wood could be harvested from a stand. Stands of timber that hitherto had been considered too small and unsellable were now useable. Mills with a large appetite for pulp and paper were constructed in the B.C. Interior. Increased construction demand drove the move to larger clear-cuts, bigger machines and more habitat destruction. It became clear to both government and business that a change in the review and approval process was in order.

Along with the concerns of other ministries, came interest in the ecological history of forests. In forestry departments of universities across Canada and the US, this concern brought about a new era of interdisciplinary research on forest history using both cultural evidence, such as written records and maps, and biological evidence, such

as vegetation surveys and data from sedimentary records. Following this growing awareness of the long-term and often pervasive anthropogenic impact on forest ecosystems, questions about the consequences for forest biodiversity were raised.<sup>13</sup>

However, despite the influence of the academy, which was considerable, all paradigm changes up to and including sustainable forestry management were driven by the need for long-term capital and wood supply, forest science, changing public values and better understanding of nature and ecosystems. While it was true that forestry had become increasingly sophisticated and that a real effort was being made to think about the broad range of forest resources and ensure that all remained healthy and able to provide benefits to society, these ideas did not drive the industry. It was driven by the resources that had some economic value: wood, wildlife for hunting and fur trapping, fish habitat for recreational fishing and camping and, increasingly, forest landscape aesthetics. In Canada, this was eventually named Integrated Forest Resource Management.

However, by 1995, all this was in considerable flux. After Rio, the UN's Earth Summit in 1992, the shift to current forest values began. It is useful to trace the establishment of the FSC and its certification program because it is the first time in history that commonly held international values were codified and integrated for use in some countries. Previously, as described by the discussion of standards above, standards were developed with the domestic actors, whether government, industry or labour, intimately involved in standards production. The goals were clear: jobs, profits, taxes and long term supply. The FSC introduced a set of supposedly international values that placed the "health" of the forest first, that "health" defined by an international organization, with the needs of stakeholders – employees, shareholders and governments – second.

## THE GENESIS AND ESTABLISHMENT OF FSC

### 1992 – *The Earth Summit*

There were five Rio documents set at the United Nations Conference on Environment and Development in Rio de Janeiro, commonly known as the Earth Summit or Rio. One governed forests and was a statement of principles to guide the management, conservation and sustainable development of all types of forests.<sup>14</sup> It was thought at the time that there was an urgent need to develop a worldwide certification and accreditation system for forests. The Forest Principles “is the informal name given to the *Non-Legally Binding Authoritative Statement of Principles for a Global Consensus on the Management, Conservation and Sustainable Development of All Types of Forests* (1992).”<sup>15</sup>

However, while Agenda 21<sup>16</sup> and the United Nations Framework Convention on Climate Change were signed by the nations attending the conference, the Statement of Principles on Forests was not, chiefly because the Malaysian and Brazilian forest sectors were lifting those countries out of systemic poverty – which all developed countries had done – and those countries wanted to develop their forests with no oversight. Canada, which is the world’s largest exporter of forest products, also refused to sign. Nonetheless, a non-binding resolution that all countries had a responsibility toward “the greening of the world” and that there was an urgent need for a worldwide certification and accreditation system for forests was accepted.

In part, this new resolution stated that forests are the source of wood, food and medicine, and are rich storehouses of many biological products yet to be discovered. They act as reservoirs for water and for carbon, that would otherwise get into the atmosphere and act as a greenhouse gas. Forests are home to many species of wildlife and, with their peaceful greenery and sense of history, fulfill human cultural and spiritual needs.<sup>17</sup>

The Rio forest principles were seen to form the basis of further negotiations toward a binding agreement.

### 1993

In 1993, Friends of the Earth, Greenpeace, the National Resources Defense Council and the World Wildlife Fund among others founded the Forest Stewardship Council in Toronto.

### 1994

Its office, the FSC Secretariat, opened in Oaxaca, Mexico. Founding members approved the FSC Principles and Criteria for forest management and the FSC Statutes and By-laws. The first certified and labelled FSC product, a wooden spatula, went on sale in the United Kingdom.

FSC held its first General Assembly in Oaxaca, Mexico. Independent certification bodies were accredited to use the FSC standards. A contact person was established for FSC in Canada.

### 1997-2000

In 1997, Sweden became the first country to have its national standard approved by FSC, and group certification for forest management was introduced to improve market access for small-forest owners. After 1997, ENGOs began registering as lobbyists, with greening of forest policy their principal goal.

In Canada, Ontario’s Ivey Foundation took the lead in promoting the Earth Summit’s principles in Canadian forestry, and the Nature Conservancy of Canada (NCC) began to act as a “broker” and aggregator of large tracts of conserved forest that would provide wildlife linkages across borders and boundaries. The idea of Model Forests was floated, and after 2000, they became a reality. They were supposed to show the success of community forests, managed in a new way by integrating indigenous knowledge and ecosystem management. The Ivey Foundation began funding Model Forests in Canada in 2000.



2004

Abroad, by 2004, FSC had begun its partnership with the World Bank, and some countries with significant forests could only receive support from the Bank if their forests were managed to FSC standards. By the time the FSC offices moved from Mexico to Bonn, there were 40 million hectares of FSC-certified forest and 20,000 FSC-labelled products. In 2007, *Harry Potter and the Deathly Hallows* was printed on FSC paper. Over the ensuing years, FSC acquired more brand-name adherents to its certification system including Domtar, Tembec, ALPAC (Alberta-Pacific Forest Industries Inc.), Kimberly-Clark, the Vancouver 2010 Olympic Village and Indigo Books and Music.

By 2004, 5 million hectares of FSC forests were certified in Canada. At present, 25 per cent of certified forests in the world are FSC forests.

## FSC AND ENGOS

While the need for forest certification was recognized at Rio, Canada refused to sign a binding resolution. Isolated forest activists in remote areas did not have the power to bring forward the issue in any significant way, and government ministries were not driven to force reform onto an industry without pressure from the public. International, national and regional foundations and larger ENGOS became the drivers of the move to forest certification, as they are today, forcing certification upon the aggregate industry and driving “public” protest against the oil sands, pipelines and fracking.

Organizational literature asserts that large foundations are important field builders, institutional entrepreneurs and facilitators of particular kinds of networks and expertise. The Carnegie Foundation, which founded libraries across the United States in the late 19th and early 20th centuries, was the first to attempt this type of social re-ordering. Carnegie’s success was duplicated and expanded through the 20th century by the largest foundations in the United States and Canada, as they advocated for housing and poverty programs, human rights and urban reform.

By 2000, foundations had developed methodologies of institution building, which Tim Bartley called, in an examination of how FSC became a dominant institution, “funding the field.” Bartley showed how foundations coordinated their dispensing of grants in order to build an organizational field in which disruptive protest and market-based forms of governance were at times *synergistic* rather than contradictory. Therefore, while casual observers often imagine that forest certification emerged as a response to consumer demand, Bartley makes clear that consumer demand had to be *mobilized and organized* and that foundations were at the forefront of this process.

Activists alone would not have been able to effect this change, even with the backing of the Earth Summit and the institutions of the UN. Some of the most substantial private foundations stepped up, including the Ford and Rockefeller foundations.

*‘It was bizarre. You know, I was still at FSC International and I got a phone call from funders saying, “[W]e’d like to fund you to do FSC-U.S.” And I said, “[W]ell, okay.” And they basically dropped money in my lap. ... At one point Rockefeller Brothers Fund said, “[S]end me four pages and we’ve got a grant for \$200,000 we have to disperse next month.[”] And I thought, “[W]ell that’s not bad, you know – \$50,000 a page.” (interview with former FSC official, 7/22/2002).’<sup>18</sup>*

As Bartley explains, foundation officers preferred “the FSC over its industry-based competitors, but rather than merely fund the FSC itself, they used their grants to build a larger field around the organization and to ‘make a market’ for certified wood”. As Bartley reported:

*‘They [the SFF – Sustainable Forestry Funders] kind of parceled out who is going to fund what, and they wanted to leverage wholesale change across the entire network. ... So they’d say, “[A]lright you fund this piece, you fund FSC,” and they’d designate three funders. And say, “[Y]ou fund CFPC [Certified Forest Products Council], and you fund SmartWood and you create some other kind of policy things and you fund international.” [Interview with former FSC official, July 22, 2002]. ...*

*‘What I wanted to do was come up with a strategy, instead of doing a grant to certification here or a grant there, I said, “you know, let’s say a sustainable forest industry is the goal. What are the set of things we need to do together to make that thing happen in addition to what we had always done traditionally?” So this portfolio of a dozen projects on the ground, what else needs to be in place for them to succeed in the market?’<sup>19</sup>*

Foundation support for the FSC brand of forest certification increased from a modest \$196,000 in 1994 to nearly \$6.1-million in 1998. Foundations nearly tripled their contributions between 1999 and 2000.

The nature of information shifted with the intense activist involvement in industrial forestry. Emotional values were attached to Canada's forests and became resonant with the public. These strong feelings began to change the balance of power in Canada's once most-productive resource. Marketing companies used this power to develop marketing techniques that framed sustainable development as anti-establishment and cool. Alongside this redefinition, demonization of the competitive productive class became common, as did the demonization of working-class "redneck" loggers and logging industry employees.

From that stance, it was easy to introduce Traditional Ecological Knowledge (TEK), or the tribal memories of Canada's native peoples, as part of jurisprudence. Equally, demonization of the competitive productive class made the acceptance of presumption of guilt, borrowed from Roman and early French jurisprudence, common. The latter has mutated into the precautionary principle, meaning the assumption of "potential" pollution or environmental harm if private industry is not tightly controlled. The idea of therapeutic justice was introduced into environmental law with the acceptance of oral tradition as legitimate evidence, which solely benefits indigenous peoples, not the settler tradition, culture and knowledge that has been accreted on the continent for 500 years but is, for some unstated reason, deemed not useful. Finally, merging with de facto presumption of guilt and therapeutic justice, the low threshold for acceptance and encouragement of intervener status that is allowed to overrule shareholder, stakeholder and senior government interests finished off a stew of innovation in regulation-writing, rule-making and legislation.

This twisting of the fundamentals of Western jurisprudence, the expansion of soft or non-quantifiable "benefits," has led to a lengthy list of innovative green projects that are not only failing in themselves but causing harm to individuals and the public purse as well as to the environmental asset supposedly being protected.<sup>20</sup>

Activists and activist organizations became the bad cop

and, in fact, used that phrase. Speaking of a campaign targeting The Home Depot, one RAN leader said, "It was like good cop/bad cop. We were the FSC's bad cop." (Quoted in Carlton 2000:A7).<sup>1</sup>

The rhetoric then was just as heated as that used by current anti-oil sands activists. For instance, as cited in Stanbury, "Clear-cutting the forest is 'sophisticated genocide, akin to the handing out of smallpox infected blankets in an earlier era.'"<sup>21</sup> This bears a similarity to tactics used today against the Keystone Pipeline and Northern Gateway, as demonstrated by a recent protest outside an Enbridge executive's house.



As foolish as that statement seems today, it worked. Only 15 years later, ENGOs were selectively collaborating with companies, promoting the certification of "well managed" forests and touting the benefits of market campaigns and market-based solutions more generally.<sup>22</sup>

The primary tool of sustainable forestry was the introduction of ecosystem management to large tracts of land. Ecosystem management is a new form of land management. Typically, new forms of management, those accepted by the ISO for example, require strict auditing and subsequent adjusting. This does not happen with FSC



methodology. The organizational field set up by foundations, ENGOs and activists prevents any criticism of the FSC version of sustainable forestry.

The method used to drive certification and prevent criticism and auditing was developed in Canada during the War of the Woods. Since this is the method used to curtail the development of pipelines, the expansion of the oil sands and the exploration of the North, a careful examination of the way in which the War of the Woods was prosecuted is in order.

## THE WAR OF THE WOODS

In the early 1990s, the sustainable forestry movement needed what Peter Hedström and Richard Swedberg call “a transformational mechanism,” which is a way by which “individual actions are transformed into some kind of collective outcome.”<sup>23</sup> In B.C.’s Clayoquot Sound, the activists found just that. While clear-cutting of the Amazon had raised consciousness of ecological damage caused by poor forest management, the Amazon was too far away and too foreign for full-scale activist involvement. B.C.’s dense, temperate rainforest was remote, wild and beautiful, and yet still part of the fully modernized West. TV camera crews and the world’s press could get there easily, as could activists.<sup>24</sup>

Logging has long been a central part of the B.C. identity and economy. British Columbia accounts for 6.6 per cent of the world’s softwood lumber harvest and almost one-quarter of world’s softwood lumber exports. It exports more than half of Canada’s forest products, and at the time the protests began, lumber had been the dominant resource industry in the province for 75 years. Most exports go to the United States, Japan and the European Union. The government of the time’s decision to sunset forest leases on the coast and the worldwide economic boom triggered increased harvesting in the B.C. coastal forest.

In 1976, a Royal Commission report under Peter Pearse, commissioned by the NDP, was delivered to the new Social Credit government. It aimed to address an issue that was almost 70 years old.

In 1906, the B.C. government was broke, and to pay its bills, it sold pulp and timber licences – called old temporary tenures. Buyers could hold these leases indefinitely, as long as they paid the annual rents. When they cut the trees, they had to reforest the land and return it to the Crown. Although these licences were intended to be a short-term fix, people hung on to them, because they were a good investment, and rather than stumpage fees paid to the government, when the forest was cut, a smaller royalty payment was due.

There were many thousands of these leases parceled in square mile blocks up and down coastal British Columbia.

Pearse recommended the wholesale expiry of those leases as soon as possible, which meant to the holders of the leases that they had to log the land immediately. “The threat of losing all those square mile blocks on the coastal ranges and the beaches, people just liquidated them; there was some real nasty logging done. There was your poster child. This created the main poster – Brazil of the North,”<sup>25</sup> says Bill Dumont today. Dumont was Chief Forester for Western Forest Products during the protests.

Sophisticated protest movements, which the War of the Woods quickly became, blur the lines between moderate institutional politics and disruptive extra-institutional politics. Margaret Keck and Kathryn Sikkink have documented the operation of complex transnational advocacy networks in which well-funded professional advocacy organizations, smaller grassroots organizations and people in the streets cooperate on campaigns that mix different ideological positions.<sup>26</sup>

According to Dumont, U.S. draft dodgers habituated to the conflictual politics of the United States were the chief initiators of local actions.

*“They knew how to play hardball, the draft dodgers. They were out of their own country; they had nothing much to do and the media just loved it; it was sport for them.”*

*It was all about how many CEOs can you embarrass? How many trees can you spike? The industry was overwhelmed. There’s no MacMillan Bloedel today because of that. The industry was incapable of coping with that pressure, and it ate up the CEOs, who were businessmen, who had no idea how to deal with the assaults. They disappeared. All the big companies on the coast disappeared, except for Western Forest. Capital abandoned coastal B.C. in the mid-to-late 90s.*

*Canfor abandoned the coast. The capital never came back.*

*The horrific thing that came from environmental pressure was the huge increase in bureaucracy. Foresters became paper pushers in the office; it was cover-your-ass forestry. You did nothing unless you could document it and defend yourself from an attack from the greens. You overwhelmed them with paper; that was the only way to defend yourself. That was the tragedy. And it added huge costs.”<sup>27</sup>*

In general, environmental politics is always highly conflictual, complete with street actions, letter writing campaigns, disruptive media driven protests, raucous public meetings, exaggerations of harm and wild accusations of predatory behaviour on the part of private industry and big government. At their worst, some activists claimed that private business was in a league with robber barons and Trilateral Commission conspiracists. In many cases, activist leaders are well paid.<sup>28</sup> However, even within green organizations, conflict rages, and there are many examples of activists quitting because of burnout. As Bartley points out, the founding of the FSC was hardly the dull procedural process by which most standards organizations are created.

*“The FSC’s 1993 founding assembly and first general assembly in 1996 were both highly conflictual, with environmental and indigenous rights activists arguing that the FSC was in danger of selling its soul to corporate interests (Dixon 1996; Synnott 2005; Wellner 1993).”<sup>29</sup>*

In 2008, Saskia Ozinga, Coordinator, Forests and the European Union Resource Network (FERN), published a paper for the Food and Agriculture Organization of the UN (FAO), querying the impact of certification of sustainable forestry management. She, too, noted the conflictual nature of forestry management.

*Forest users, including local communities and indigenous peoples, government management agencies, environmental NGOs, logging companies and timber concessionaires, have diverse and often conflicting*

*interests in how forests are managed.”<sup>30</sup>*

*These groups – and the individuals who represent them – are also rooted within a variety of cultures that influence the ways they view and interact with the forest. As a result forests are often sites of social and political conflicts, frequently related to access to the forest and the formal and informal means by which people gain that access (Green, 2001; Schmidt, Berry and Gordon, 1999).*

However, while she may be right about historical conflict in developing countries, this was not the case in Canada until the War of the Woods. Environmental activists and their funders – many from out of the country – brought conflict to Canada’s forests, as is the case today with the activists and funders who oppose the oil sands and pipelines.

Once the intensive media campaign began in 1993, it proved impossible to stop. The Clayoquot protests became the largest civil disobedience protests in Canadian history. More than 800 people were arrested, and media arrived from all over the world to document the struggle. International activists joined in, and posters about the destruction of B.C.’s ancient forests were plastered on subway walls and construction hoardings all across Europe and the United States. In Greenock, Glasgow, four Greenpeace members climbed to the top of a crane on the *Saga Wind*, a ship trying to deliver B.C. timber and pulp to Europe. The men would not leave until two major chains agreed not to buy B.C. forest products.<sup>31</sup>

In Frankfurt, demonstrators chained themselves to the gates of a plant owned by Clairiant, one of Western Forest Products’ biggest European customers for pulp.<sup>32</sup> In a speech to the Canadian Pulp and Paper Association in Vancouver, Linda Coady, Vice-President of Environmental Affairs at MacMillan Bloedel, said that customers such as PacBell, *The New York Times* and GTE had been “hit with thousands of letters, protests and targeting of Boards of Directors.” She also said, “PacBell received 25,000 signed protest cards in one six-week period.” On October 24, 1995, at the behest of RAN, the City of Santa Cruz



passed a resolution urging companies to purchase paper only from companies with ecologically sustainable forestry practices.<sup>33</sup> Demarketing letters threatened small operators.<sup>34</sup> Thousands of incidents, all lovingly documented on the evening news and in the morning papers, cowed the industry, terrified government and seeded the ground for the British Columbia Forest Practices Code, which, by the time it was codified, was so detailed in scope, it stood seven-feet high.



As Bartley observed, the entrance of large funding foundations changed the forestry protests and shaped that movement by

*building a new 'organizational field' – that is, a socially constructed arena of self-referencing, mutually dependent organizations – and enrolling other actors into this project. In the specific case of environmental movements, foundations were key players in building a field of 'forest certification,' a market-based alternative to boycotts, which garnered the*

*support of many environmental SMOs [Social Movement Orientation].<sup>35</sup>*

According to Bartley:

*The fact that foundations became enthusiastic supporters of certification rather than supporters of boycotts or grassroots organizing fits the overall contours of the channeling/social control argument. However, the way that this process unfolded differs significantly from the accounts offered by existing approaches in the social movement literature. While the literature would lead us to expect a de-funding of protest groups and a professional transformation of the grassroots, I show how foundations coordinated their grant-making to build an organizational field in which disruptive protest and market-based forms of governance were synergistic rather than contradictory.*

Who was in charge, the activists or the foundations? Bartley is saying that each fed the other. Activists gave foundations meaning and significance; foundations gave activists badly needed money. They reinforced each other. Government and industry were effectively co-opted, and sustainable forestry became policy in all ministries that governed the resource. Private industry fought back by developing its own certification programs, but they were based upon the Montréal Protocol, which itself was based on the UN's Forest Principles.

The forestry companies of British Columbia were simply overwhelmed by the forces arrayed against them. Surrounded on all sides, they gave in. Many large companies that employed thousands of people and were strong economic contributors to the public good folded under the pressure. Over the next 10 years, MacMillan Bloedel, one of British Columbia's long-time keystone companies, and Crown Zellerbach Canada were merged into Catalyst, which then endured a series of plant closings as market conditions continued to be difficult. For example, it cost Western Forest Products \$1-billion to conform to the new Forest Practices Code. Over the ensuing decade,

the product from the coastal B.C. forest was reduced by 60 per cent,<sup>36</sup> thereby reducing tax revenue from one of B.C.'s largest industries as well as substantial direct and indirect employment, which meant a severe drawing down of B.C.'s rural economy. This persists to this day.

## FSC IN CANADA AND THE UNITED STATES

FSC implements 38 different standards across the world, many of which are 'interim,' or not fully developed. The requirements on businesses and landowners vary greatly across the 38 different standards even though all of these products are FSC certified.<sup>37</sup> This lack of consistency leads to North American foresters facing steep benchmarks, while some international landowners in countries like Brazil or Russia are receiving FSC certification more easily.<sup>38</sup>

This intrusion into the marketplace skews the market toward unsustainably harvested wood from Russia, for the sake of argument, while pricing FSC Canadian wood out of reach.

However, foresters and government officials who manage public forests identify four reasons for accepting certification. The principal reason is market access. As described above, many big retailers were forced to accept FSC wood. The second is that customers came to believe that Canadian forests were not well managed, and certification gave the public assurance of good forest management. The third is the provision of an environmental management system. Before the War of the Woods, forests were managed to create economic wealth. Despite the fact that owning a forest, whether by the public or a corporation or an individual, means taking care of that forest in order to produce wood reliably over time, there were slash and burn logging operations in Canada that were careless and even destructive of the forests they cut. Industrial forestry too often meant logging in unsustainable ways. However, given the scale of Canadian forestry and the growing sophistication of Canadian foresters, as time went on and wealth increased, these operations were increasingly rare. Occasionally, as in the case of the B.C. coastal forests in the latter part of the 20th century, government decisions triggered destructive practices in public forests, but those, too, were increasingly rare. Finally, the fourth reason given is that certification provided a useful checklist of items that must be managed.

However, given the unwillingness of foundations and activists to abandon a lucrative field of operation, this last has meant that the list of elements to be managed has increased over time, meaning that activists and their funding organizations, largely private foundations, still steer the agenda. And conflict is ongoing. As Bartley points out:

*[T]he conflicts between the FSC and its industry-based competitors have continued, leading to campaigns emphasizing the credibility of some labels over others (e.g., a 'Don't Buy SFI' campaign) and a series of reports comparing the different systems (Mater, Price, and Sample 2002; Meridian Institute 2001). ... [P]articular certifications have sometimes proven controversial (Rainforest Foundation 2002). Finally, NGOs, SMOs, and certification organizations have not always appreciated the heavy hand of foundations, especially when they have been perceived as being too business friendly or too likely to put the means (certification) above the end (improvements in forest conditions). Foundations have been accused of controlling the FSC administration and subverting its democratic decision-making process.*

While forestry operations have conformed to much of what ENGOs, the UN and government agencies wanted initially, restrictions only increase. B.C.'s PFLA (Private Forest Landowners Association) describes the new restrictions these operations face. These restrictions, in the process of being developed, will affect the management of private and public forest lands across the country. Issues being raised are as follows:

1. Environment Canada is responsible for implementing the *Migratory Birds Convention Act* and Regulations.<sup>39</sup> Originally tasked over 100 years ago with preserving stocks of meat birds, the legislation today prohibits the taking of migratory birds, of which there are now more than 500 listed. It includes birds, fledglings, eggs



and nests, occupied or not. ENGOs press government continuously for further enforcement of the law that affects not only forestry across the country but every other resource industry as well.

The PFLA's recent policy brief points out:

As the process stands now, Environment Canada will make this information available and landowners are expected to manage their operations accordingly. The implications of this approach could mean extended curtailment periods for all resource management activities during nesting season. This could have significant impacts for multiple industries.<sup>40</sup>

2. The Committee on the Status of Endangered Species in Canada (COSEWIC) is constantly adding species to the list of those that must be considered and protected during any resource extraction. "Parks Canada is in the process of developing a recovery plan for the Northern Goshawk,<sup>41</sup> a raptor identified as threatened ... ." The Northern Goshawk, like the Spotted Owl, ranges over hundreds of miles, all of which must be protected. However, Northern Goshawks thrive in managed second-growth forests.<sup>42</sup>
3. Critical habitat areas are always in the process of increasing in area. Each province calls these provisions in law (which are virtual land confiscations) by a different name, and depending on the government in power, reasonable sharing arrangements can be made.<sup>43</sup>

The basic policy principle is this: when habitat required for the survival of a species cannot be provided by public land, government has the option to make arrangements with landowners to protect critical wildlife habitat that exists on private land.

4. Smoke and Fire. Because of the increase in size and intensity of forest fires over the past 20 years, "the pricing structure of firefighting cost sharing agreement"

has changed, and the rates and proportion of rates charged to foresters are increasing. This would be reasonable if massive forest fires were not generally caused by governments that surrender control of their forests to activist groups that have by proxy re-written regulations and created certification systems that generate forest fires and increase their size and intensity. Holly Lipke Fretwell, an Economics Professor at the University of Montana and fellow at PERC (Property and Environmental Research Center), using the archives of the U.S. Forest Service found that new forest management practices were largely to blame, particularly those that left ancient growth untended, without thinning or clearing, allowing brush to flourish and often create fuel ladders that climbed trees that acted like tinder.<sup>44</sup> As Fretwell points out, because of the environmental mismanagement of the U.S. public forests, largely due to excessive species protection rules and "natural" regulation, the Forest Service itself estimates that between 90 and 200 million acres are in danger of exploding in a once-in-a-millennium catastrophic forest fire, which will burn so hot, it will scarify even the earth, killing seeds.

5. Smoke and dust, including sawdust in Ontario, are being classified as pollutants, and the British Columbia Ministry of Environment is developing further regulation to address public health risks from smoke.<sup>45</sup> However, "prescribed fire is an important tool for forest health and minimizing wildfire risk." According to the PFLA, "Alternatives to using well-planned and well-implemented prescribed burning practices are expensive and ineffective, and increase the potential for reduced forest health and catastrophic wildfires that threaten forests, lives and communities."<sup>46</sup>

To begin measuring the effects of forest certification and activist, ENGO and foundation incursions into the forestry sector, it is useful to look at three sets of metrics. First, are the forests producing the wealth that they once did? Second, are the forests now healthier than they were before

the institution of FSC certification? Third, what has been the effect on rural communities that are located in forested areas and have depended on these forests for employment, tax receipts and social services?

In June of 2013, Brooks Mendell, Ph.D., and Amanda Hamsley Lang of Forisk Consulting published a paper through EconoSTATS at George Mason University in Washington, D.C., titled "Economic Analysis of Forest Certification."

This was the first *independent*<sup>47</sup> economic analysis of the effects of forest certification anywhere. Sampling forests in the Southern United States and the U.S. Pacific Northwest, Mendell and Lang found that "FSC standards imposed significantly higher costs and lead to significantly lower output," leaving some FSC forests running 31 per cent below base studies that were done before certification.

*[I]n the South, the most significant negative economic impacts were associated with designating certain forests as FSC 'plantations.' Higher costs and lower output lead to lower economic activity including lost jobs, incomes, and tax revenues.*

*FSC standards also reduce operational flexibility creating additional economic costs that, while difficult to measure,*

*are no less real. The long-term economic consequences are exemplified by the fate of the American automobile manufacturers during the 1970s and 1980s. Reduced operational flexibility makes it more difficult for any industry to adapt to changing global circumstances or consumer demands.*

*Then there is the problem of FSC's ambiguity, exemplified by its varying standards across the globe. Policy implementation works best when there is little room for confusion or interpretation. When policies are vague or open to interpretation by either the industry or the regulator/auditor, uncertainty arises. Regulatory uncertainty is the enemy of business growth – whether that business is manufacturing, finance, or forestry.*

**1. In the Oregon case study, both FSC scenarios significantly reduce economic returns to landowners.** Relative to base forest management practices and SFI scenarios, forests managed as either natural stands or plantations under FSC reduce the estimated present value of net operating cash flows by 31% to 46% for the 46-year operating period. The FSC guidelines reduced the acres available for timber harvests, which resulted in lower harvested volumes of wood compared with the base case and SFI scenario.

## Summary Economic and Operational Results for Oregon Case Study

Scenario Profile	Base	SFI	FSC_Natural	FSC_Plantation
NPV \$ loss relative to Base Case	0%	0%	-31%	-46%
% of timberland acres available for harvest	93%	93%	75%	78%
Total harvest for 46 year period relative to Base (MBF)	0%	0%	-30%	-42%

Note: MBF is thousand board feet

**2. In the Arkansas case study, the FSC-Plantation scenario significantly reduces economic returns to landowners.**

## Summary Economic and Operational Results for Arkansas Case Study

Scenario Profile	Base	SFI	FSC_Natural	FSC_Plantation
NPV \$ loss relative to Base Case	0%	-4%	-11%	-26%
% of timberland acres available for harvest	91%	91%	91%	75%
Total harvest for 36 year period relative to Base (tons)	0%	-8%	-14%	-28%

**3. Reduced wood flows associated with FSC certification are associated with greater reductions of employment and tax revenues.**

**State-level Jobs and Taxes Results (Relative to Base Forest Management Practices)**

Arkansas	Base	SFI	FSC_Natural	FSC_Plantation
Direct forest industry jobs lost	0%	1,254	2,194	4,388
Direct + indirect jobs lost	0%	2,808	4,915	9,830
Severance taxes lost	0%	\$178,538	\$312,441	\$624,882

Oregon	Base	SFI	FSC_Natural	FSC_Plantation
Direct forest industry jobs lost	0%	0	6,648	4,748
Direct + indirect jobs lost	0%	0	31,829	22,735
Severance taxes lost	0%	0	\$6,180,754	\$4,414,824

Direct employees include foresters, loggers, millworkers, and forestry consultants and contractors. Indirect jobs include jobs that support the forest industry, such as motor freight transportation, machinery repair, and wholesale trade. Indirect job impacts also include "induced" jobs created by the spending of workers in the forest industry.

They also include government jobs such as teachers, hospital workers and municipal employees and contractors.

State-level implementation of FSC in Oregon could reduce direct and indirect forest industry employment by over 31,000 jobs and reduce annual severance taxes by over \$6 million. State level implementation of the FSC-Plantation standard in Arkansas could eliminate direct and indirect forest industry employment by up to 10,000 jobs and reduce annual severance taxes by over \$600,000.

**Scenarios Modeled for the South Case Study**

Spatial/Harvest	FSC_Plantation	FSC_Natural	SFI	Base
Width of RMZ*	Landowner current practice + set-asides (425ft buffer on stream)	Landowner current practice	Landowner current practice	Landowner current practice
Retention	N/A	Assume no measurable impact	Assume no measurable impact	Assume no measurable impact
Permanent land set-aside	25% of FMU ac (including RMZ)	N/A	None (outside RMZ)	None (outside RMZ)
Clear cut size	40 acre average 80 acre max 1 acre min	40 acre average 80 acre max 1 acre min	120 acre average 250 acre max 1 acre min	None
Green-up interval	2 years	2 years	3 years	None

*Note: Assumed that clear cut and green-up intervals managed as a "moving window" where an area adjacent to a clear cut may be harvested prior to green-up conditions, provided that the sum of the area is less than or equal to the maximum clear cut size. Assume 250 maximum clear cut size for SFI based on common practice in the South.*

*\*Landowner current practice was used as the baseline RMZ in the Southern scenarios. We used the landowner's RMZs instead of state BMPs because landowner's RMZs were larger than the minimum state BMPs for Arkansas and Louisiana.*

## Scenarios Modeled for the Pacific Northwest Case Study

Spatial/Harvest	FSC_Plantation	FSC_Natural	SFI	Base
Width of RMZ	Fish bearing: 150ft Perennial: 100ft Intermittent (aquatic species: 75ft Intermittent (no aquatic species: 0	Same as plantation	Oregon BMP (see table below)	Oregon BMP (see table below)
Retention	N/A	Harvest age 55 years with 10% basal area (in addition to RMZ)	Assume no measurable impact	Assume no measurable impact
Permanent land set-aside	25% of FMU ac (including RMZ)	N/A	None (outside RMZ)	None (outside RMZ)
Clear cut size	40 acre average 80 acre max	40 acre average 60 acre max	120 acre max 5 acre min	120 acre max 5 acre min
Green-up interval	7 years	4 years	4 years	4 years

*Note: Assumed that clear cut and green-up intervals managed as a "moving window" where an area adjacent to a clear cut may be harvested prior to green-up conditions, provided that the sum of the area is less than or equal to the maximum clear cut size.*

Oregon forest practices rules state that no clear cut should be within 300 feet of a previous clear cut unless the total acreage is less than the maximum clear cut size or the stand meets green up requirements.

Riparian management is one of the most difficult issues facing foresters. Creek setbacks demanded by conservation

organizations and FSC certifiers are large, particularly in view of the fact that trees near water grow far larger than do trees farther away. While no one has any quarrel regarding protecting fish in creeks and the biota around fish bearing creeks and creek flow, the restrictions are often unnecessarily restrictive as demonstrated in maps below:

## Oregon State BMP for Riparian Management Zone (RMZ) Width

Size	Type F (Fish)	Type D (Domestic, Non-fish)	Type N (Other)
Large	100 feet	70 feet	70 feet
Medium	70 feet	50 feet	50 feet
Small	50 feet	20 feet	0 feet

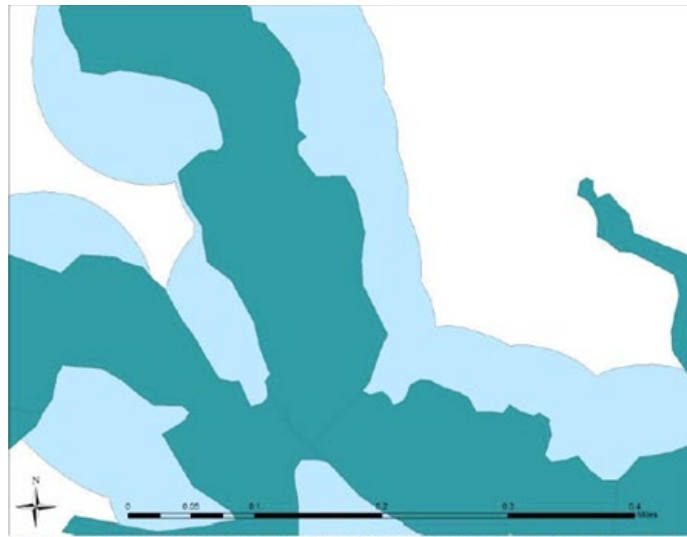
Source: Oregon Forest Practices Act



**Figure 1. Landowner RMZ vs State Minimum Requirement, U.S. South Case**



**Figure 2. Landowner RMZ vs FSC Plantation Scenario, U.S. South Case**



*Note: the dark blue represents the RMZ as implemented by the landowner. The light blue represents additional forestland set-asides required by the FSC-Plantation scenario.*

### Harvestable and Set-Aside Acres, Pacific Northwest Case

	Base & SFI	FSC-Natural	FSC-Plantation
Total acres	210,601	210,601	210,601
Forested/Productive acres	203,374	203,374	203,374
RMZ & set-aside acres	13,433	45,202	51,536
Set-aside (% of productive acres)	7%	2%	25%
Harvestable acres	189,941	158,172	151,838

## Economic and Operational Results, Arkansas Case

Scenario Profile	Base	SFI	FSC_Natural	FSC_Plantation
RMZ & set-asides, acres	10,189	10,189	10,189	27,553
Set-aside % of productive acres	9%	9%	9%	25%
Harvestable acres in scenario	98,966	98,966	98,966	81,602
Harvestable % of productive acres	91%	91%	91%	75%
<b>Forest Operations</b>				
Total harvest volume for period (tons)	22,324,364	20,528,296	19,178,139	16,044,850
Volume % reduction relative to Base Case	0%	-8%	-14%	-28%
<b>Economic Analysis</b>				
NPV \$ loss relative to Base Case	0%	-4%	-11%	-26%
<b>State-level Jobs and Taxes</b>				
Direct forest industry jobs lost relative to Base Case	0	1,254	2,194	4,388
Direct + indirect jobs lost relative to Base Case	0	2,808	4,915	9,830
Severance taxes lost relative to Base Case	0	\$178,538	\$312,441	\$624,882

## Economic and Operational Results, Oregon Case

Scenario Profile	Base	SFI	FSC_Natural	FSC_Plantation
RMZ & set-asides, acres	13,433	13,433	51,536	45,202
Set-aside % of productive acres	7%	7%	25%	22%
Harvestable acres in scenario	189,941	189,941	151,838	158,172
Harvestable % of productive acres	93%	93%	75%	78%
<b>Forest Operations</b>				
Total harvest volume for period (MBF)	7,287,685	7,287,685	5,086,000	4,255,579
Volume % reduction relative to Base Case	0%	0%	-30%	-42%
<b>Economic Analysis</b>				
NPV \$ loss relative to Base Case	0%	0%	-31%	-46%
<b>State-level Jobs and Taxes</b>				
Direct forest industry jobs lost relative to Base Case	0	0	6,648	4,748
Direct + indirect jobs lost relative to Base Case	0	0	31,829	22,735
Severance taxes lost relative to Base Case	0	0	\$6,180,754	\$4,414,824

## *Real-world Case Studies*

While statistical analysis is critical, it is also useful to include examples from the front lines of certification. FSC certification has been prosecuted for only 20 years and in full effect for 10. Results are only beginning to come clear. Foresters who work with certification procedures and test new rules in their own forests provide crucial data and information.

George Fenn is a retired physicist who trained in electro-optical physics at the California Institute of Technology. He had a successful career in the defence industry at both the executive and technical level before he bought 400-acres of forestland in Douglas County, Oregon. He studied silviculture extensively, built a library used by scholars today and travelled the world to observe forest management in countries with temperate climates. In 1997, Fenn presented a paper at the University of Minnesota in response to what he saw as the unproductive demands of the FSC. By that time, after managing his forest for 32 years, he was operating on a sustained yield basis. Having invested heavily in reforestation, he was harvesting trees he had planted in the late 1970s.

"Our land productivity is sustained and sustainable. We search for, and acquire the best genetic resources possible. We work with the most advanced seedling nurseries for planting stock. We plant, fertilize, control competing vegetation, protect against animal damage, optimize the drainage, protect the stream, avoid erosion and take great care during harvest ...."

"We have a mini GIS system [Geographic Information System] to keep track of forest inventory and our records of fertilization, foliage analysis, herbicides, planting and harvesting. We have 12 commercial species of trees in our forests [the natural regeneration had only two species in any significant quantity]."

"Our forests attract many visitors every year from industry, non-industrial forest owners and academic researchers.

The sustainable productivity in our forest is about 400 per cent of a natural forest [managed to FSC standards]."

Fenn went on to provide a quick financial analysis of his forest, managed to the highest scientific standards of the time, compared to a forest managed to FSC standards. He performed the experiment using his own forest as the test subject.

"One can easily see the results in our own forest. The natural stands can only produce about 100 cubic feet per acre per year [a little over a cord per acre or 6.9 cubic metres per hectare] while the intensively managed stands produce about 400 cubic feet per acre per year [about 4.5 cords per acre or 27.6 cubic metres per hectare]. In other words, the intensively managed stands are four times as productive as the natural stands. Moreover, they are healthier, since they have exhibited robust growth ever since they were juvenile. We are now able to harvest thinnings as saw logs at age 18, but we believe that this will be further reduced. We project a total production of 85,000 board feet per acre from thinnings and a final clear-cut harvest at age 41."

"We went through a financial analysis of our silviculture regime, and we compared it with the option of long-rotation forestry [required by FSC with a final harvest at 70 years]. We used a discount rate of eight per cent, typical of assets held for a long time ... We found that the short-rotation, intensive forestry regime produced a net present value return of \$2,600 per acre compared with a loss of \$674 for the long-rotation forestry."

His conclusion?

"The FSC program has severe cost consequences. Compared to the best silviculture, it would reduce productivity by 75 per cent. It would increase the cost of our wood products by 400 per cent [a direct consequence of the productivity equation.]"

Then there are the added costs of certification itself. Jim Petersen of Evergreen Foundation reported on a certification audit in a Boise Cascade forest in La Grand, Oregon:

*We learned that Day 1 was devoted to a random search of company forestry records. Anything in the filing cabinet is fair game. Day 2 was spent interviewing foresters, logging engineers, silviculturists and reforestation specialists. Three-hour interviews are commonplace. 'It is like taking off all your clothes at a public beach,' a company forester tells me later. Today's field audit [Day 3] is a reality check. Does what the certification team sees on the ground mirror what they learned on Day 1 and 2? We will know at the end of the day.*

*Midway through Day 2 the team announced it was rejecting the three sites the audit firm had selected for today's field audit in favor of three new locations. I ask why and am told that certification teams view unanticipated scheduling changes as a way of enhancing the credibility of their audits. 'The company had time to prepare for the first three sites,' explains Price, Waterhouse, Coopers [sic] Audit Manager Bruce Eaket. 'They had no time to prepare for the alternate sites we selected at the last moment. We like it that way.'*

*Third party audits take from four to nine days and can cost well over \$100,000, depending on the size of the forest. The landowner pays – a fact that raises conflict of interest questions in the minds of many including a retailer attending last night's briefing. But when someone asks if any retailer in the room would be willing to pick up the tab no hands go up. Retailers are no more interested in paying for certified 'green' lumber than are their customers, so Boise eats the cost – as do other major lumber producers.<sup>48</sup>*

Certification costs incurred by the forestry company implementing certification are substantial, and customers generally refuse to pay these additional costs. Boise Cascade, a large logging operation in the United States, can afford the \$100,000 certification cost, but smaller operators cannot. Fred Cubbage and Susan Moore in "Impacts and Costs of Forest Certification: A Survey of SFI and FSC in North America" found that if a forest is smaller than 4,000

hectares, the certification costs are 4,000 per cent greater per hectare than are the costs of larger forests.<sup>49</sup>

As well, there are additional costs when abandoning the many scientific advances in silviculture that forest certification rejects as unacceptable for "natural" regulation or ecosystem-based management. George Fenn summarized his findings from studying and practising forestry at the highest scientific level available to him:

1. Scientifically advanced forest management practices have demonstrated significant and sustainable gains in the production of wood and fibre.
2. Genetic improvements in timber species can increase growth by 135 per cent to 280 per cent, depending on methods and species.
3. Control of competing vegetation by vegetation management can increase growth by 200 per cent to 400 per cent during juvenile years. This means healthier trees at an early age.
4. Fertilization can increase growth during juvenile years by 300 per cent and by 125 per cent to 150 per cent in later years.
5. A combination of treatments can produce both linear and synergistic results.
6. Saw logs can be harvested as early as 18 years.
7. Fertilized and intensively managed stands exhibit less disease and decay.
8. The projected increase in net present value return of short-rotation, intensively managed stands in southern Oregon over unmanaged long-rotations stands may exceed \$3,200 per acre.<sup>50</sup>

FSC certifiers forbid most of these innovations and scientific advancements for forest operators.



## Costs to Forested Communities

How do forestry companies assume these costs and losses without an equal rise in price? They take steps to reduce costs at every turn. The Irving forests in Maine (the Irving family of New Brunswick has forests among their many interests) are certified to the highest standards.<sup>51</sup>

While natives or indigenous peoples are enshrined in the lexicon of ENGOs and their funders as entirely virtuous victims, competitive industries, “rednecks,” or working class men and women in rural areas are perceived as being less than worthy of attention. Therefore, when a forestry company such as Irving moves into the Maine woods and proceeds to certify its forests to the highest FSC standard, there are no serious studies of any resultant damage done to the local community. To maintain FSC standards, which as we have seen above, cut harvests by as much as 46 per cent, in the St. John Valley in Maine, where families have been loggers working for wood products companies for generations, the difference to their lives is clear.

*“Irving’s goal, according to spokesman Chuck Gadzik, is to have a lean, efficient and profitable operation here. That means cutting costs. Irving is looking to its contractors to shoulder some of the savings. Some contractors report that Irving cut their rates by 25 to 35 per cent.”*

*“Further, Irving is not doing business with the largest contracting companies, Gadzik said. Instead it is hiring smaller operations which are willing to run their harvesting machines around the clock. Irving doesn’t negotiate contracts. If they don’t take what they are offered they hire either Canadian bonded workers or a young, hungry start-up looking to get a foot in. Contractors are down to ¼ of 1 per cent profit. Another contractor, a fourth generation logger, said he couldn’t afford to work for Irving because the company doesn’t want to pay “the real costs of producing the wood. I provide professionally trained employees, health insurance, company vehicles and pay the best hourly wage possible .... Irving’s prices are too low.”<sup>52</sup>*

Irving is a tightly managed company which has managed to keep all their P&P mills operating and their people employed while the Canadian industry lost 35% of productive capacity between 2000 and 2014. Equally, while managing the company well, they are also seen as good forest managers. KC Irving is the only CEO of a forest products company to be named Hon Chief Forester of the province by a resolution of a provincial legislature. Irving managed to survive the forestry draw-down because of its management and diversification. Hundreds of smaller operators were driven from the business with immense negative employment effect.

In 2002, Matleena Kniivilä and Olli Saastamoinen published a paper called “The Opportunity Costs of Forest Conservation in a Local Economy.” The pair investigated the results of forest certification in a small town in Finland and found that certification annual losses as regards to employment during the first decade were estimated to be 5.7 to 20.4 jobs. Later, the employment effects were estimated to be 2.4 to 6.3 lost jobs.<sup>53</sup> However, the paper did not estimate indirect job losses, ancillary job losses, tax revenue lost from the lack of actual production of value or the effect of a slow deflationary spiral caused by lack of activity, which is what conservation, finally, becomes. Conservation may add jobs paid for by the state, municipality or foundation, but does it add value other than aesthetic, some tourism and future benefits? No one has been able to argue that point successfully.

Environmental Trends in 2011 did a study in a small county in Utah and found an annual average income loss of \$1,440 per household, a \$37,500 loss for payroll and a \$92,910 loss for tax receipts,<sup>54</sup> caused by taking land out of production. Multiply this across thousands of small communities in a country or region and it is easy to understand how creating wilderness and diminishing receipts from resource industries by as much as 30 per cent to 60 per cent can have a serious deleterious effect on rural economies.

The fact that forest certification in Western countries has not been effectively judged and reformed can be summarized by these cases and others and is supported by the literature of the FAO of the UN. As cited above, Saskia Ozinga, Coordinator, FERN for FAO, published a paper in which she stated: "Although forest certification was conceived not only to market forest products but also to improve forest management, little research has been done to identify its impacts on the ground."

The FSC certification report on the forests in Maine makes no mention of the hardship levied on the contractors and labourers in Irving's forests. Apparently, the socioeconomic impact on the community was nil.<sup>55</sup>

This last demonstrates a critical disconnect between the foundations, the organizational field of activists and the universities and governments that they have successfully engineered and on-the-ground reality. A review of the literature on FSC certified wood at the FAO document repositories and Yale.edu, another repository of studies about FSC certification, shows almost nothing in the way of field studies on the situation of long-time logging communities and loggers or the impact of certification on their lives. It is understandable that forestry company owners, faced with the fact that their timber assets, on which they must show a profit or perhaps lose the company, are now worth between 40 per cent and 60 per cent of what they used to be, would squeeze the most vulnerable in the production chain.

There is also a severe disconnect between the literature on FSC certification on the ideals of the program and the exigencies of actually running a real-world business. A study from Quebec is almost laughable, as the academics strive to prove that certification standards do not affect forestry company share prices, not even the most rigorous standards required by FSC. Seemingly, the ordinary strategies of corporations shaving off unprofitable divisions or merging them into larger, more-profitable ones in order to keep their share value up is foreign to the mathematicians of the study.<sup>56</sup>

The conclusion, therefore, is easily reached that at present, certification starves forested communities of work and tax receipts, draws down rural economies, raises the price of wood and unduly benefits cheaper wood producers from jurisdictions such as Russia and Sweden, both of which enjoy lax FSC certification. And finally, it locks out of certain markets wood producers that do not adopt certification.

Evidence is beginning to show too that the "natural" regulation promoted by FSC, ENGOs and the foundations and activists that support FSC is not healthy for the world's forests when compared with the most advanced silviculture practices possible today. While a full analysis is beyond the scope of this paper, there is a large body of data accumulating that suggests "natural" regulation, or ecosystem-based management is fundamentally flawed. It is entirely arguable that by jettisoning the scientific advances in silviculture of the last 50 years and turning to "natural" regulation, the FSC has set back forestry more than a generation. This may not be as destructive to Canada as it surely is to developing countries that desperately need the lost income to build a modern economy that provides education, medical and social services. But as Western economies continue to stumble along, with severe levels of public debt, the systematic crippling of an industry in the service of the feelings of marginally informed and privileged urban classes is profoundly irresponsible.

## THE CANADIAN BOREAL FOREST AGREEMENT

The Canadian boreal forest contains about one-third of the circumpolar boreal forest that rings the northern part of the planet beneath the pole. More than 1,000 kilometres wide, it separates the tundra in the North from the temperate forests of the south. The Canadian boreal forest is considered the largest intact forest on Earth, with 3 million square kilometres undisturbed by roads or industrial development. Hundreds of cities and towns within its territory derive at least 20 per cent of their economic activity from the forest, mainly from industries such as forest products, mining, oil, gas and tourism.<sup>57</sup>

However, its relatively undisturbed continuity has made Canada's boreal region a particular target of environmentalists and conservationists for many decades. Considered a laboratory for the Earth sciences and a magnificent carbon sink, not to mention being the undisturbed habitat of thousands of northern species and the largest storage of fresh water in the world, the boreal forest packs considerable emotional weight. It is also a storehouse of resource wealth.

Large-scale conservation in the boreal region did not begin until the early 2000s. In July 2008, the Ontario government announced plans to protect 225,000 kilometres of the northern boreal lands. In February 2010, the Canadian government established protection for 5,300 square miles (14,000 km<sup>2</sup>) of boreal forest by creating a new reserve of 4,100 square miles (11,000 km<sup>2</sup>) in the Mealy Mountains area of Eastern Canada and a waterway provincial park of 1,200 square miles (3,100 km<sup>2</sup>) that follows alongside the Eagle River from the headwaters to the sea.<sup>58</sup> This latter sequestration in Labrador is larger than Yosemite and Yellowstone together in the United States.

Finally, in 2010, the Canadian government entered into a historic conservation "agreement", the Canadian Boreal

Forest Agreement. Called a "unique collaboration between 18 major Canadian forest products companies and nine leading environmental organizations," it applied to more than 76 million hectares of forest from the provinces of British Columbia to Newfoundland.<sup>59</sup>

The following ENGOs were participating partners in the Agreement: The Canadian Boreal Initiative, Canadian Parks and Wilderness Society, David Suzuki Foundation, ForestEthics, The Nature Conservancy, Pew Environment Group International Boreal Conservation Campaign, The Ivey Foundation, Canopy and Greenpeace. (Please note TNC, The Nature Conservancy is NOT NCC, Nature Conservancy of Canada.)

While 18 forestry companies signed on initially, the total rose to 20 by the time the negotiations were complete: Alberta-Pacific Forest Industries Inc., the AV Group, Canfor Corporation, Canfor Pulp Limited Partnership, Cariboo Pulp and Paper Company, Cascades Inc., Conifex Timber Inc., Daishowa-Marubeni International Ltd., F.F. Soucy Inc., Howe Sound Pulp and Paper Limited Partnership, Kruger Inc., Louisiana Pacific Canada Limited, Mercer International, Millar Western, NewPage Corporation, Resolute Forest Products, Tembec, Tolko Industries Ltd., West Fraser Timber Co. Ltd. and Weyerhaeuser Company Limited.

In 2013, Canopy and Greenpeace dropped out of the Agreement. Nicole Rycroft, the Founder and Executive Director of Canopy claimed,

*"This collaboration with the logging industry was supposed to be a game-changer for the protection of species and conservation in Canada's threatened Boreal forest," said Nicole Rycroft, Founder and Executive Director of Canopy.*

*"The disappointing reality is that not one hectare of forest*

*has been protected and species and ecosystems are still at risk.”<sup>60</sup> and Greenpeace stated that Resolute was building roads into preserved forests.<sup>61</sup> Resolute sued for libel and eventually Greenpeace backed down, stating they were in error. Greenpeace launched another set of accusations against Resolute later in 2013, and Resolute began seeking damages from Greenpeace for malicious slander. In July of 2014, the Court awarded Resolute standing and ordered Greenpeace to pay \$22,000 in legal costs and to “deliver its statement of defense within 10 days of this decision.”<sup>62</sup>*

The boreal forest sequestration raises many issues, and all of them need further examination. Most of the reporting, both academic and in the press, has been glowing, even celebratory. Despite that, a few questions have been raised. How did representatives of seven environmental organizations, two headquartered in the U.S., become managers of 76 million hectares of Canada, along with 20 forestry companies many of which are multinationals? Two of the seven-member environmental secretariat are from The Nature Conservancy in the United States, the largest land banker in the world, whose practices in the United States and developing countries have raised serious questions and accusations regarding theft, graft, tax dodging and systematic favouring of the very wealthy, and the Pew Charitable Trust, headquartered in Philadelphia, the parent of which is the principal extractor in the oil sands. This last itself raises questions. Does Pew’s management of the boreal region mean that Pew is able to prevent further exploration in that vast region? Or would Pew’s favoured position in the Boreal Region mean that the family’s oil company would have favoured status, if part of the Boreal was made open for exploration and exploitation? Would the subsequent development of any resources found affect Pew’s receipts by creating competing companies?

How is it that multinational forestry companies and ENGOs have virtually taken ownership of the forest? What happened to local operators and businesses, and what has happened to the municipal governments in those areas? The provincial governments have constitutional authority

and responsibility for land-use decisions affecting publically owned forest land. Are their land-use decisions and needs to be over-ridden by boards subject to no democratic process?

Antagonists of the Agreement on both the left and right decry the alienation of control of the land from Canadians. On the right, the machinations of the environmental NGOs are heavily criticized, and on the left, the virtual assignment of the land to multinational forestry companies – which can behave much as Irving was forced to behave – in the Maine woods, shutting out long-time local operators and local governments, is equally criticized.

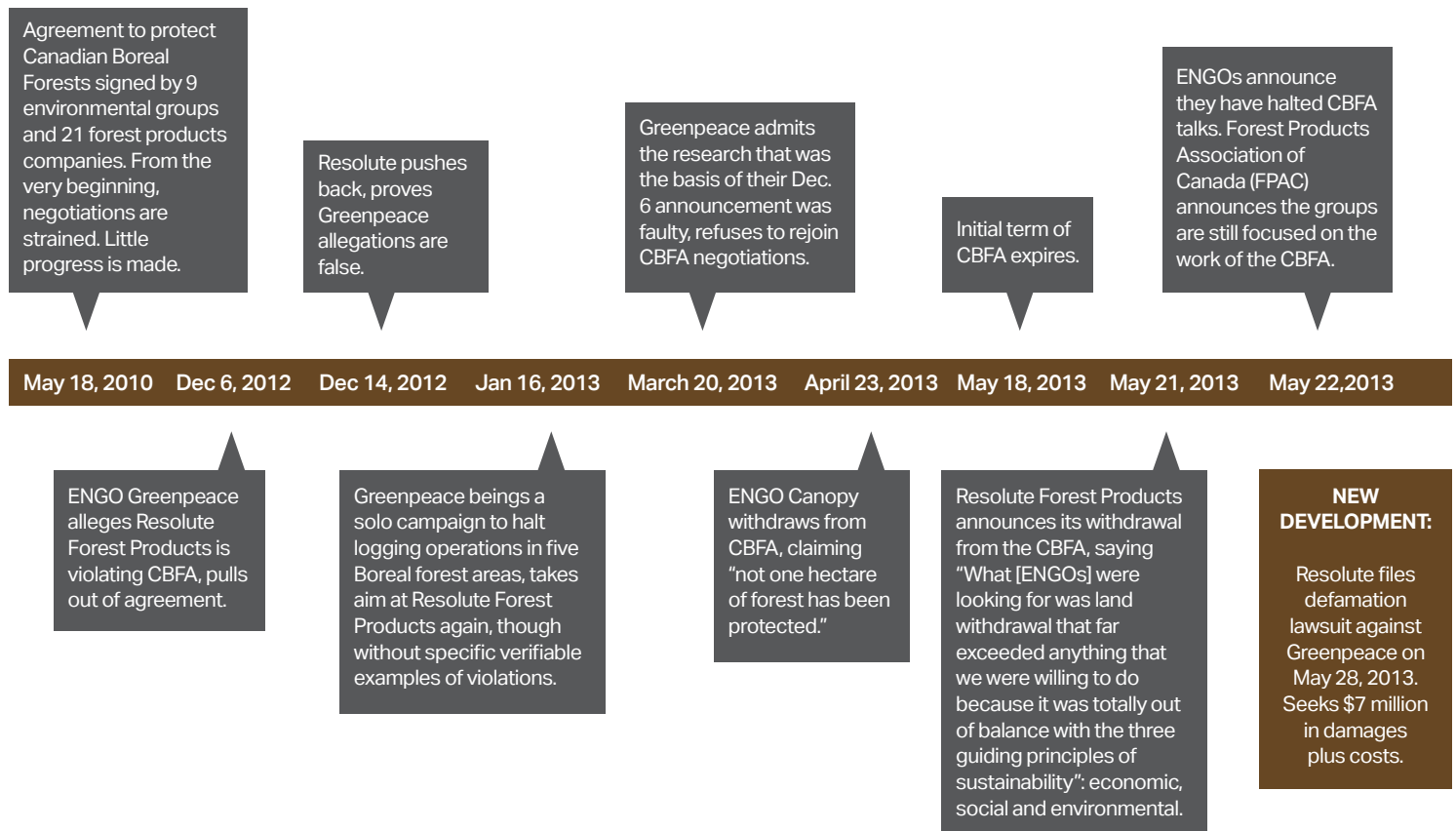
Observers point out the similarities to the Clayoquot and Great Bear campaigns, saying that the moment the Agreement was signed, Greenpeace began work on “Boreal Alarm: a Wake-up Call for Action on Canada’s Endangered Forests,” published in 2013, which pointed out that five forests in Quebec, Manitoba and Ontario required further saving. Long-time watchers also cite the War of the Woods, saying that the audience for this report is not the United States or Canada; it is Europe and its marketplace. They also say that Greenpeace is acting in concert with its funders to increase the amount of land under conservation.

Within three years of its signing, the CBFA broke down, as is typical with environmental organizations, in the midst of conflict, accusation and counter-accusation, because Greenpeace and its eventual ally Canopy decided that not enough was being conserved.

Many think the “breakdown” is tactical. The real value of boreal forestry is far more than just sticks and chips; forestry also provides roads and development, infrastructure that facilitates other resource activities. Forestry is strategically important to natural resource development, *sensu lato* – limit forestry and you limit the development of communities and other industries.

As described in earlier papers, three major conservation campaigns and provincial policy reinforce the CBFA:

## The Breakdown: The Canadian Boreal Forest Agreement (CBFA) Breaks Down



Transboundary Pimachiowin Aki between Manitoba and Ontario, Ontario's Woodland Caribou Conservation Plan and Quebec's Plan Nord. Pimachiowin Aki has been rebuffed temporarily<sup>63</sup> but will, as does every conservation plan, return when the political climate shifts.

Resolute's suit against Greenpeace is the first time any forestry company has effectively struck back. According to the *National Post* in May of 2013,

*The suit, which was filed in Thunder Bay last Thursday, names Greenpeace and its campaigners, Richard Brooks and Shane Moffatt, and claims 'damages for defamation, malicious falsehood and intentional interference with economic relations' in the amount of \$5-million. It also seeks punitive damages of \$2-million, plus costs.*<sup>64</sup>

Despite the relatively small amounts involved in the claim, this is a national battle with international implications. If Resolute wins its Statement of Claim, forestry companies and governments all over the world that have submitted to the green domination of the resource may be inspired to kick over the traces and instigate badly needed reform.

The campaign against Resolute is also understandable in view of the long-term goals of ENGOS and their funders. Resolute is the largest integrated forestry company operating in the boreal forest (woodlands, harvesting, manufacturing and marketing) and like MacMillan Bloedel in Clayoquot and Weyerhaeuser on the mid-coast, it is the obvious target. Cripple Resolute and you trigger the "transformational" event that begins the deflationary spiral in Canada's great natural resource storehouse. Break that, and you have broken the will of the Canadian economy.



## CONCLUSION

Forest certification in Canada requires root-and-branch reform so that the benefits from Canada's public forests are captured by Canadians, not activists, not ENGOs, not foundations seemingly acting in the public good, and the strong feelings of the not-fully-informed urban elite. While reform is occurring, a serious look at the machinations of so called civil society<sup>65</sup>, which acted in concert to alienate Canadian resources from Canadians in the service of poorly defined ideals, must take place. No sector of the economy is immune to oversight, criticism and vigorous reform, and given the masterful creation of an organizational field that supports forest certification, there has been little dispassionate examination of the work of the many organizations that are now steering the agenda in much of Canada's forested lands.

The broad failures of forest certification, the failure of the process to improve the well-being of local economies, the failure of the process to maximize the economic benefit of the forest for Canadians and the failure of the process to properly tend to the forests, must be taken into account when considering the future of the energy and extractive industries of the North. These failures must not be repeated, and Canadians must not allow seemingly well-meaning ENGOs and foundations to guide the future of those resources. Politicians, industrialists in the private sector and bureaucrats must be able to make decisions without the shrill demagoguery invented and used with power and effect during Canada's forest battles. Such conflict and polarization have markedly harmed the public good.

## ENDNOTES

<sup>1</sup>ENGOS, foundations and ministries typically conduct studies that tout the success of forest certification. However, with no exceptions, the organizations directly interested in promoting the system they invented and financed commission all the studies. As cited by Tim Bartley, foundations and NGOs have created “a socially constructed arena of self-referencing, mutually dependent organizations (DiMaggio and Powell 1991; Scott 200 – and enrolling other actors into this project.” These are the organizations and actors that now “audit” certified forests.

<sup>2</sup>Coyne, Andrew, “Canada is Still Unprepared for Ageing Double Whammy,” *National Post*, September 3, 2012. Available online at <http://fullcomment.nationalpost.com/2012/09/03/andrew-coyne-canada-needs-to-increase-productivity-to-combat-an-aging-workforce/>.

<sup>3</sup>Rotherham, Tony, “Looking for Recognition,” *Wood Business*, October 2012.

<sup>4</sup>PEFC Canadian Sustainable Forest Management. Available online at <http://csasfmforests.ca/csasfmforestusergroup.htm>.

<sup>5</sup>ISO EMS is the internationally recognized standard for the environmental management of businesses. It prescribes controls for those activities that have an effect on the environment.

<sup>6</sup>Canadian Council of Forest Ministers, “SFM in Canada – Criteria and Indicators.” Available online at [http://www.ccfm.org/english/coreproducts-criteria\\_in.asp](http://www.ccfm.org/english/coreproducts-criteria_in.asp).

<sup>8</sup>FSC staff and ENGO supporters often state this goal openly. Interview with Tony Rotherham, President of the Canadian Association of Forest Owners, “In February 2001, I attended an FAO [Food and Agriculture Organization] conference on Forest Certification in Rome. There were about 300 people present – from many countries. At the end of the conference, Markku Simula, the Chairman, asked if anyone had any last words to say before he adjourned the conference. A man rose at the back of the hall and stated ‘I would like to put everyone at this conference on notice that WWF, Friends of the Earth, Greenpeace and all ENGOS who support the FSC will do everything in their power to destroy the credibility of any certification system that threatens the position of the FSC.’ I asked who the speaker was and was told by Ben Gunneberg, the Managing Director of PEFC, who was seated beside me, that it was Heiko Liedeker, who was then the senior forest campaigner for WWF in Germany. A short time later, Liedeker was appointed head of FSC International in Bonn.”

<sup>9</sup>“SFI: Certified Greenwash: Inside the Sustainable Forestry Initiative’s Deceptive Eco-label,” a report by ForestEthics, November 2010. <http://www.forestethics.org/sites/forestethics.huang.radicaldesigns.org/files/SFI-Certified-Greenwash-Report-ForestEthics.pdf>

<sup>10</sup>FSC-US Forest Management Standard (v1.0) (w/o FF Indicators and Guidance). Recommended by FSC-US Board, May 25, 2010. Approved by FSC-IC, July 8, 2010.

<sup>11</sup>Letter to West Timber op. cit.

<sup>12</sup>Botkin, Daniel B., *Discordant Harmonies: A New Ecology for the Twenty-first Century*, Oxford University Press, 1992; also an extensive interview with Alston Chase, author of *Playing God in Yellowstone: the Destruction of America’s First National Park*, HBJ, 1987, and *In A Dark Wood: the Fight over Forests and the Myths of Nature*, Transaction Publishers, 2001. Landscape alterations by natives in the United States and Canada pre-European influence are treated in all three books, and extensive sources are provided. Charles C. Mann has written extensively about Indian landscape alteration. “1491,” *The Atlantic*, March 2002. Available online at <http://www.theatlantic.com/magazine/archive/2002/03/1491/302445/> and “America, Found and Lost,” *National Geographic*, May 2007. Available online at <http://ngm.nationalgeographic.com/print/2007/05/jamestown/charles-mann-text>.

<sup>13</sup>Honnay, O., K. Verheyen, B. Bossuyt and M. Hermy, Eds., *Forest Biodiversity: Lessons from History for Conservation*, IUFRO Research Series (Book 10,) CABI Publishing, 2004, Wallingford, Oxfordshire, United Kingdom.

<sup>14</sup>Statement of Principles on Forests, Agenda 21 for Change. Available online at <http://www.iisd.org/rio+5/agenda/principles.htm>

<sup>15</sup>Wikipedia

<sup>16</sup>Agenda 21 is described in the Agenda for the 1992 Rio conference as a “blueprint on how to make development socially, economically and environmentally sustainable.” <https://sustainabledevelopment.un.org/content/documents/Agenda21.pdf>

<sup>17</sup>Statement of Principles on Forests, Agenda 21 for Change. Available online at <http://www.iisd.org/rio+5/agenda/principles.htm>.

<sup>18</sup>Tim Bartley, “How Foundations Shape Social Movements: The Construction of an Organizational Field and the Rise of Forest Certification Indiana University and Princeton University, *Social Problems*, Vol. 54, Issue 3, pp. 229–255, ISSN 0037-7791, electronic ISSN 1533-8533 2007

<sup>19</sup>Bartley, op. cit.

<sup>20</sup>Please see Papers 1 and 2 in this series.

<sup>21</sup>Greenpeace UK, cited in W.T. Stanbury, *“Environmental Groups and the International Conflict Over the Forests of British Columbia, 1990-2000,”* SFU-UBC Centre for the Study of Government and Business, Vancouver, 2000.

<sup>22</sup>Steven Bernstein, 2001. *The Compromise of Liberal Environmentalism*. New York: Columbia University Press

<sup>23</sup>*Social Mechanisms: an Analytical Approach to Social Theory*, Eds., Peter Hedström and Richard Swedberg, Cambridge University Press, 1998, page 23.

<sup>24</sup>Hume, Mark, “It’s Going to be Bigger than Clayoquot Sound,” *The Globe and Mail*, March 27, 2010. Available online at <http://www.theglobeandmail.com/news/british-columbia/its-going-to-be-bigger-than-clayoquot-sound/article1366285/>.

<sup>25</sup>February 2014 interview with Bill Dumont, Chief Forester, Western Forest Products, 1993-2002.

<sup>26</sup>Keck, Margaret E. and Kathryn Sikkink, *Activists beyond Borders*, Cornell University Press, 1998.

<sup>27</sup>Dumont, Op Cit

<sup>28</sup>Please see EnviroTrak, Section 1.

<sup>29</sup>Bartley op.cit.

<sup>30</sup>Ozinga, Saskia, *“Time to Measure the Impacts of Certification on Sustainable Forest Management,”* FAO, 2008.

<sup>31</sup>*The Vancouver Sun*, March 28, 1998.

<sup>32</sup>*Ibid. The Vancouver Sun.*

<sup>33</sup>Stanbury, William T., *Environmental Groups and the International Conflict over the Forests of British Columbia*, 1990-2000, SFU-UBC Centre for the Study of Government and Business, 2000, page 126-127. This book provides an excellent history of one of the most successful civil actions of the last 25 years.

<sup>34</sup>A letter from Coastal Rainforest Coalition to Wayne Clogg, Vice President, West Fraser Timber, in Prince Rupert, on June 5, 2000, threatened, “to single out your company in the marketplace in order to insure that other companies do not follow your lead.” Clogg wanted to sell his forest licence without the encumbrances CRC was demanding.

<sup>35</sup>Op cit. Bartley, Tim, “How Foundations Shape Social Movements”

<sup>36</sup>Interview with Bill Dumont, Chief Forester, Western Forest Products, 1993-2002.

<sup>37</sup>Brooks Mendell and Amanda Hamsley Lang, “Comparing Forest Certification Standards in the United States: Economic Analysis and Practical Considerations,” EconoSTATS, George Mason University, June 2013.

<sup>38</sup>*Ibid.*

<sup>39</sup>*Migratory Birds Convention Act (MBCA) and Regulations*, Environment Canada. Available online at <http://www.ec.gc.ca/nature/default.asp?lang=En&n=7CEBB77D-1>.

<sup>40</sup>Private Forest Landowners Association. Available online at <http://www.pfla.bc.ca/policy-and-legislation/pfla-public-policy-update-june-2013/>.

<sup>41</sup>Parks Canada, Species at Risk, Gallery 2. Available online at <http://www.pc.gc.ca/nature/eep-sar/itm9/eep-sar9b/photo9.aspx>.

<sup>42</sup>BC’s Coast Region: Species & Ecosystems of Conservation Concern. Available online at [http://www.geog.ubc.ca/biodiversity/factsheets/pdf/Accipiter\\_gentilis.pdf](http://www.geog.ubc.ca/biodiversity/factsheets/pdf/Accipiter_gentilis.pdf).

<sup>43</sup>PFLA, op. cit.

<sup>44</sup>Holly Lipke Fretwell, *“Whose Minding the Federal Estate? Political Management of America’s Public Lands*, Lanham, Maryland, 2009.

<sup>45</sup>Proposed Changes to the Open Burning Smoke Control Regulation, British Columbia Ministry of Environment. Available online at [http://www.env.gov.bc.ca/epd/codes/open\\_burning/index.htm](http://www.env.gov.bc.ca/epd/codes/open_burning/index.htm).

<sup>46</sup>Private Forest Landowners Association, PFLA Public Policy Update, June 2013. Available online at <http://www.pfla.bc.ca/policy-and-legislation/pfla-public-policy-update-june-2013/>.

<sup>47</sup>Footnote #1, op. cit.

<sup>48</sup>Petersen, Jim, “The Bountiful Harvest: Securing America’s Forest Future,” *Evergreen Magazine*, Fall 2001. Available online at [http://wp\\_medialib.s3.amazonaws.com/wp-content/uploads/2014/10/EG\\_Fall2001.pdf](http://wp_medialib.s3.amazonaws.com/wp-content/uploads/2014/10/EG_Fall2001.pdf).

<sup>49</sup>Cubbage, Fred and Susan Moore, PowerPoint presentation, "Impacts and Costs of Forest Certification: A Survey of SFI and FSC in North America," Department of Forestry and Environmental Resources, North Carolina State University. Available online at <http://www.sfiprogram.org/files/pdf/fred-cubbage20080923pdf/>. Presented at the 2008 Sustainable Forestry Initiative Meeting, Minneapolis, September 23, 2008.

<sup>50</sup>Fenn op. cit.

<sup>51</sup>Irving. Available online at <http://www.jdirving.com/article.aspx?id=2156>.

<sup>52</sup>Austin, Phyllis, "Hard Times in Irving's Woods: Loggers and Truckers Want Some New Rules," Maine Environmental Network, 2004.

<sup>53</sup>Kniivilä, Matleena and Olli Saastamoinen, "The Opportunity Costs of Forest Conservation in a Local Economy, *Silva Fennica* 36(4): 853-865, 2002. Available online at <http://www.silvafennica.fi/pdf/article526.pdf>.

<sup>54</sup>Steed, Brian C., Ryan M. Yonk and Randy Simmons, "The Economic Costs of Wilderness," June 2011. Available online at <http://www.environmentaltrends.org/fileadmin/pri/documents/2011/brief062011.pdf>.

<sup>55</sup>Forest Management and Stump-to-Forest Gate Chain-of-Custody Certification Evaluation Report for the: J.D. Irving Woodlands LLC – Maine Woodlands. Conducted under auspices of the SCS Forest Conservation Program.

<sup>56</sup>Bouslah, Kais, Bouchra M'Zali, Marie-France Turcotte and Maher Kooli, "The Impact of Forest Certification on Firm Financial Performance in Canada and the U.S.," *Les Cahier de la CRSDD* – collection recherche No 06-2009. Available online at [http://www.crsdd.uqam.ca/pages/docs/pdfCahiersRecherche/06-2009\\_10-10-09.pdf](http://www.crsdd.uqam.ca/pages/docs/pdfCahiersRecherche/06-2009_10-10-09.pdf).

<sup>57</sup>Canadian Forest Services, The State of Canada's Forests 2004-2005: The Boreal Forest. Available online at <https://cfs.nrcan.gc.ca/publications?id=25648>.

<sup>58</sup>Braun, David, "Boreal Landscapes Added to Canada's Parks," *National Geographic*, February 7, 2010. Available online at [http://newswatch.nationalgeographic.com/2010/02/07/boreal\\_landscapes\\_added\\_to\\_canada\\_parks/](http://newswatch.nationalgeographic.com/2010/02/07/boreal_landscapes_added_to_canada_parks/).

<sup>59</sup><http://canadianborealforestagreement.com/index.php/en/full-agreement#sthash.BosUuD29.dpuf>.

<sup>60</sup><http://www.newswire.ca/en/story/1147303/conservation-group-withdraws-from-boreal-forest-agreement-with-industry>

<sup>61</sup>CBC, "Greenpeace Says Boreal Forest Agreement No Longer Working." Available online at <http://www.cbc.ca/news/politics/greenpeace-says-boreal-forest-agreement-no-longer-working-1.1169886>.

<sup>62</sup>Corcoran, Terence, "How Greenpeace Landed Itself in Serious Legal Trouble with its Campaign against a Forestry Company," *Financial Post*, July 16, 2014. Available online at <http://business.financialpost.com/2014/07/16/greenpeace-resolute/>.

<sup>63</sup>CTV, "UNESCO Bid for Manitoba-Ontario Forest Could Get Second Attempt in 2016." Available online at <http://www.ctvnews.ca/sci-tech/unesco-bid-for-manitoba-ontario-forest-could-get-second-attempt-in-2016-1.1639037>.

<sup>64</sup>Foster, Peter, "Greenpeace's 'Malicious Falsehoods' in Attacks on Boreal Forest Agreement," *National Post*, May 28, 2013. Available online at <http://opinion.financialpost.com/2013/05/28/peter-foster-greenpeaces-malicious-falsehoods-over-borealis-initiative/>.

<sup>65</sup>As defined by the WHO, "Civil society is seen as a social sphere separate from both the state and the market. The increasingly accepted understanding of the term civil society organizations (CSOs) is that of non-state, not-for-profit, voluntary organizations formed by people in that social sphere. This term is used to describe a wide range of organizations, networks, associations, groups and movements that are independent from government and that sometimes come together to advance their common interests through collective action."

