

POWER, SCIENCE, AND NATURE IN THE GREAT BEAR RAINFOREST:  
AN ACTOR-NETWORK ANALYSIS OF AN INTEGRATED NATURAL RESOURCE  
MANAGEMENT PROJECT

by

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## Abstract

This dissertation explores the potential contribution of actor-network theory to the investigation of power and hierarchy, science and politics, and the relationship between nature and society in integrated natural resource management (INRM) projects. INRM consists of natural resource management approaches that seek to devolve power and authority from governments and experts to stakeholders, take account of people as part of ecosystems, and directly link conservation and development. While INRM projects represent an important evolution in resource management, they come with particular sets of problems. Specifically, (1) the devolution of decision-making authority to communities provokes issues of power and hierarchy as groups vie to ensure that their interests are adequately taken into account, (2) critiques of expert-led processes shift responsibility for knowledge production to stakeholder groups, thus raising questions about the relationship between science and politics, and (3) attempts to link ecology and economy require a difficult re-conceptualization of the link between nature and society. Actor-network theory (ANT) avoids presuppositions about power, science, nature, and society in order to study how they are produced as effects of networks, thus offering unique conceptual tools to study INRM as a complex, contingent, and innovative network-building process. A qualitative case study of the “Great Bear Rainforest” agreement on British Columbia’s west coast is undertaken to explore these issues in INRM. Analysis of interviews with 34 individuals from environmental organizations, forestry companies, First Nations, consultancies and local and provincial governments, as well as analysis of textual material, reveals how environmentalists (1) generated power by building a network of activists, bears, forest products customers and forestry companies, (2) simultaneously deployed science and politics in their network-building activities and (3) moved away from attempts to purify networks into “nature” and “society,” working instead to directly link ecosystem integrity and human well-being in a new, common “collective” of humans and nonhumans. The research provides significant detail and analysis of a particular case of INRM that will be of use to INRM practitioners, advocates and activists. Additionally, the research demonstrates the applicability of ANT to the investigation of power, science, and nature in INRM projects.

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## Acronyms

<b>Acronym</b>	<b>Full Name</b>
AAC	Annual Allowable Cut
ANT	Actor-Network Theory
BC	British Columbia
CAD	Conservation Area Design
CBNRM	Community-Based Natural Resource Management
CCLRMP	Central Coast Land Resource Management Plan
CFCI	Coast Forest Conservation Initiative
CIII	Conservation Investments and Incentives Initiative
CIT	Coast Information Team
CLUA	Coast Land Use Agreement
CRC	Clayoquot (later Coast) Rainforest Coalition
CRN	Canadian Rainforest Network
EBM	Ecosystem-Based Management
EBMH	Ecosystem-Based Management Handbook
EBM WG	Ecosystem-Based Management Working Group
EI	Ecological Integrity
ENGO	Environmental Non-Governmental Organization
FAN	Forest Action Network
G2G	Government-to-Government
GBR	Great Bear Rainforest
HWB	Human Well-Being
ICDP	Integrated Conservation and Development Projects
INRM	Integrated Natural Resource Management
Interfor	International Forest Products
IWA	Industrial Wood and Allied Workers of Canada
JSP	Joint Solutions Project
Kit-Git-Pit	Kitasoo-Gitga'at Protocol Implementation Team
LOI	Letter of Intent
LRF	Land and Resource Forum
LRMP	Land and Resource Management Plan
LUP	Land Use Plan
MOF	Ministry of Forests
OPP	Obligatory Point of Passage
PIMC	Plan Implementation Committee
RAN	Rainforest Action Network
RONV	Range of Natural Variation
RSP	Rainforest Solutions Project
WCWC	Western Canada Wilderness Committee
WFP	Western Forest Products

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## Dedication

*For my parents, Robyn and Larry Page, whose love and support provided this  
dissertation's condition of possibility*

*and*

*for Maryam Nabavi, my ongoing inspiration*

# 1 Introduction

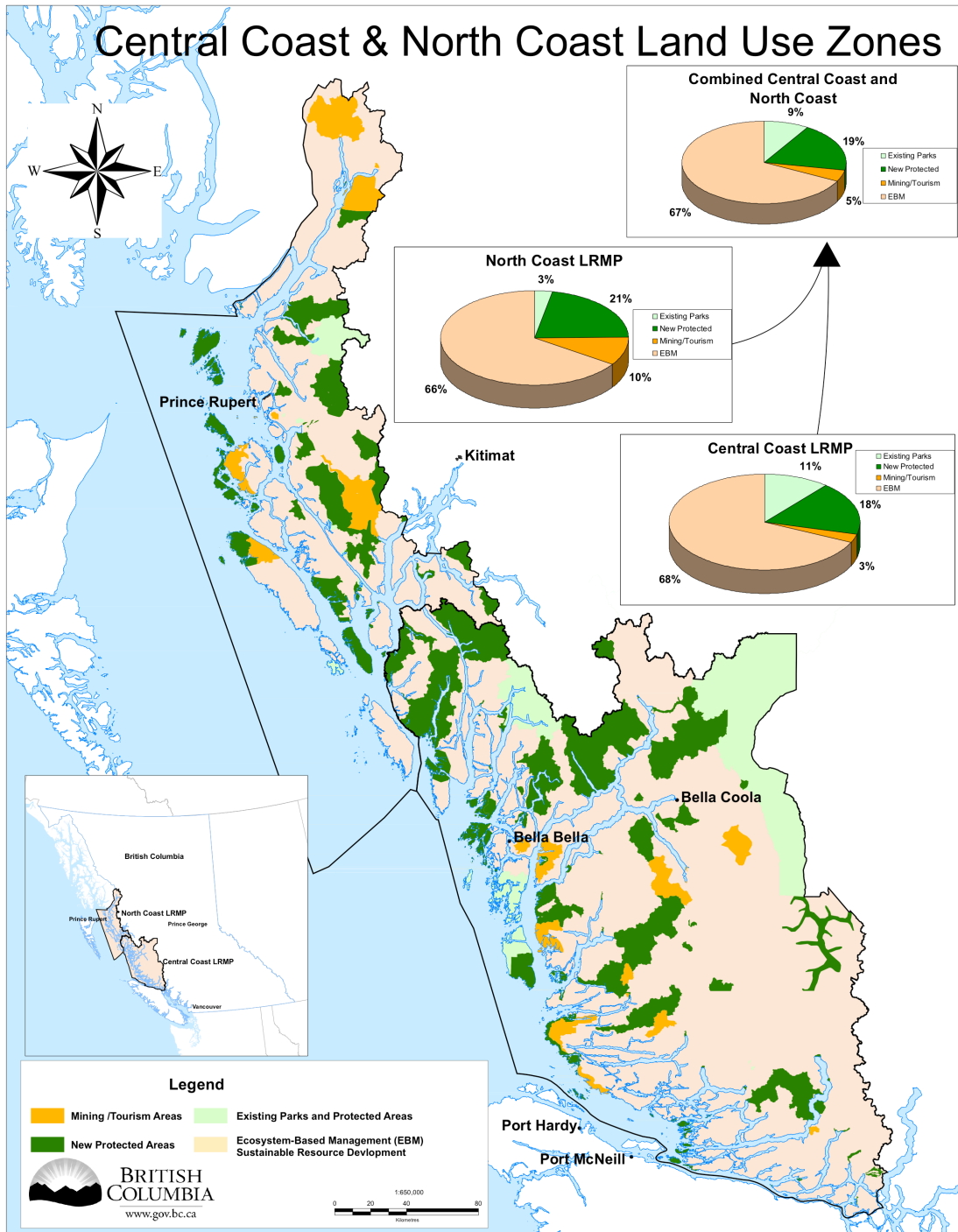
It is February 7<sup>th</sup>, 2006. You sit down in front of the television or spread out a newspaper, maybe you're listening to the radio in your car. You might be in Vancouver, or Montreal, or New York. Maybe you're in England, or Austria, perhaps Japan. You learn that an agreement has been reached to protect the world's "largest remaining temperate coastal rainforest." Maybe you haven't heard of this place. You're told that it is called the "Great Bear Rainforest" by environmentalists and that it stretches along British Columbia, Canada's central and north coasts. The size of new protected areas is translated into local terms: depending on where you are, they are almost the size of New Jersey, twice the size of Yellowstone, or three times the size of Prince Edward Island. The entire area is twice the size of Belgium, they say. The agreement involves an "unprecedented collaboration between First Nations, industry, environmentalists, local governments, and many other stakeholders" (Government of British Columbia, 2006). It protects, reporters note, the habitat of species like grizzly bears, wolves, salmon and the "elusive spirit bear." It is "British Columbia's gift to the planet," says one environmentalist (Smith, 2006). "Spirit bear," you think, "that sounds pretty interesting."

A wilderness of close to five million acres, almost the size of New Jersey, in what is commonly called the Great Bear Rain Forest or the Amazon of the North will be kept off limits to loggers in an agreement that the disparate parties describe as a crossroads in their relations. – *New York Times* (Krauss, 2006a)

Ending a decade-long environmental battle once dubbed the "War of the Woods," British Columbia is set to announce Tuesday the creation of a park twice the size of Yellowstone along a vast coastal swath where grizzly bears and wolves now prowl under thousand-year-old cedar trees. – *Washington Post* (Struck, 2006)

An improbable assemblage of officials from the provincial government, coastal Native Canadian nations, logging companies and environmental groups will announce an agreement to preserve the home of the Spirit bear, which is also the largest remaining temperate coastal rain forest. – *Herald Tribune* (Krauss, 2006b)

Reading on, you learn that environmentalists, First Nations, logging companies, and the Government of British Columbia (BC) have agreed to protect 1.8 million hectares while putting in place strict, lighter touch forestry practices for 4.6 million hectares, bringing the total area of the agreement to 6.4 million hectares. This is a little difficult to visualize, so they provide a map (see *Figure 1*). Reporters note that the 100 protected valleys represent about one-third of the area, while around two-thirds remains open to logging. However, logging and other activities on this land will be guided by something called *ecosystem-based management* (EBM).



**Figure 1: Coast Land Use Zones**

Source: Integrated Land Management Bureau (2010)

EBM, they say, is a way of managing land use that minimizes impact on the environment, thereby ensuring that the use of resources remains sustainable. Someone is quoted as saying that EBM guides forestry planning on the basis of what you should leave, not what you should take. That is, it shifts the focus from logging parameters such as fibre volume to ecosystem characteristics such as bear dens, tree snags and buffers around streams.

The new parks, in addition to 600,000 hectares already in parkland, will create a network of protected areas encompassing 1.8 million hectares -- an area three times the size of Prince Edward Island -- in 100 pristine river valleys. – *The Vancouver Sun* (Hamilton, 2006)

Logging will be allowed in many areas in the Great Bear Rainforest, but it will take place under "ecosystem-based management." The new logging approach is supposed to protect the environment while permitting up to 50 per cent of the timber to be removed from some areas. – *Globe and Mail* (Hume, 2006)

[Ecosystem-based management] integrates ecological, economic and social purposes and is designed to work as a management and planning regime that first looks at what is needed to be left in place to allow for a healthy ecosystem and then looks at what can be taken out. – *Rainforest Solutions Project* (Rainforest Solutions Project, ND)

Descriptors such as *historic*, *unprecedented*, and *landmark* are being used throughout the news stories in reference to the agreement so as to suggest that *this*



agreement represents an entirely new way of resolving resource conflict. The “war in the woods” is over, say the newspapers, TVs, and radios. The agreement appears to reconcile the interests of environmentalists in protection, forestry companies in continued operations, and First Nations in decision-making and economic development. “This agreement brings an end to the long-standing resource-use conflicts over this land,” says Dallas Smith, a First Nations leader (Government of British Columbia, 2006). “This is a revolution in the way that we approach forestry in British Columbia,” says Merran Smith, an environmental representative. “It is a revolution where communities are leaders in their own destinies. Where logging practices have a lighter touch on the land and conservation comes first” (Smith, 2006).

Along these lines, you hear something about the development of a new economy, a *conservation economy*. Apparently, environmentalists have raised \$60-million, supplemented by the Provincial and (probably) Federal governments to a total of \$120-million, to support the development of a regional economy that creates employment while protecting wilderness. First Nations seem to be keen on this idea. Art Sterritt, the leader of a group called Coastal First Nations talks about a diversified economy, about First Nations’ access to forestry, but also the development of new opportunities like ecotourism, fishing lodges, and shellfish. He says that, “For First Nations [the agreement] is a new beginning. It means that we’re going to be able to develop an economy that’s sustainable, and that’s really what’s important about this” (as cited in Forsythe, 2006).

## **1.1 Research Objectives**

Reading or hearing all of this while sitting in front of your newspaper or TV, you may have a number of questions. Where did this “historic” and “unprecedented” agreement come from? What are “ecosystem-based management” and the “conservation economy?” Why are non-governmental groups making decisions about public resources? Since when did environmentalists, forestry companies, and First Nations “collaborate?” Who really made these decisions? Was the decision based on science? Is the area a “pristine wilderness” or a working landscape? Is it protected or is it going to be developed?

These are legitimate questions, ones that many people who came across the Great Bear Rainforest (GBR) announcement may have had. Their sheer variety reflects the complexity and diversity of the case. The Great Bear Rainforest agreement draws together a wide range of actors, elements and practices, including environmentalists, forestry companies, First Nations, the Provincial Government, bears, trees, coastal temperate rainforests, ecosystems, forestry practices, and economies. These elements feed into a complex and nuanced decision that avoids top-down, expert-led decisions to either protect land or to develop it. The usual categories of understanding do not seem to apply. The land is neither transformed into a giant park, nor into a working forest. Some valleys are protected, but many more are open to development; moreover, people are considered to be important parts of the coastal ecosystems, rather than in necessary conflict with the coastal forests. The conservation economy seeks to avoid a trade-off between ecology and economy: conservation will provide jobs and economic

development will conserve the forests. While the Provincial Government convened the press announcement, it is not the primary decision-maker: rather, multiple stakeholders have played a part in producing the agreement.

It may seem difficult to understand this case, given its complexity and novelty. However, despite the fact that the agreement is indeed “unprecedented” for British Columbia, many of its central features are informed by developments within the conservation field over the past 30-40 years. Many conservation scholars and practitioners argued that conventional conservation projects – those that try to protect areas of land by excluding human use – are too top-down, neglect the rights of local people who depend on natural resources for their livelihoods, and result in species loss through ecological fragmentation (Hulme, 1999). In response, advocates called for community-based forms of decision-making, resource management that takes into account entire landscapes and the human populations that reside in them, and the linkage of conservation and development in positive rather than zero-sum terms (Hulme, 1999). These “win-win-win” proposals seeking to protect ecosystems, foster economic development, and promote justice and inclusion of local communities, were given a big push with the 1980s focus on sustainable development. Collectively, these proposals can be referred to as “integrated natural resource management” (INRM), which may be defined as an approach to resource management that seeks to devolve decision-making to stakeholders, broaden management to human-nonhuman landscapes, and reconcile conservation and development.

There was the '80s, all the campaigns on Vancouver Island to save each last valley that was left, to try to save them and so much effort put into it. And then people sort of woke up and realized, "Okay, well here we have this region to the North, where there are 100s of valleys," you know, 100 large ones and hundreds of small ones, so, "My gosh, what are we gonna do to protect it?" [E – NT: 078]

It took a while for people to hash it out from, "Okay, we want no logging" – which everybody might want in their hearts – but there was enough people to say, "well, we're not going to achieve that, and is that really what we want?" [E – NT: 102]

It took me a long time to realize that our conceptions of wilderness, you know the basic conception of wilderness, that it's a place untouched by humans, is really wrong. (Berman as cited in *The National*, June 16, 1999)

The reality is we've been out and visited those First Nation communities and they're fucking in trouble, like, it's not good out there. These people, something has to shift. [E - KI1: 30]

We came up with this, I think, at the time it felt like what we're coming up with was a big vision. You know, we're going to protect the majority of all the intact valleys and we're going to transform the logging practices, and we're going to create a new kind of economy. [E - NT: 102]

INRM represents an important evolution in resource management. However, the approach comes with particular sets of problems. First, devolution of decision-making authority to communities is not a simple or straightforward process. Communities are not homogenous or bounded, but are internally fractured and connected in multiple ways to actors and entities outside their boundaries (Agrawal & Gibson, 1999). Devolution of decision-making to stakeholders therefore takes place in a context of power and hierarchy as groups vie to ensure that their interests are adequately taken into account. Secondly, challenges to expert-led decision-making involved in INRM not only bring more groups – both lay and expert – into contact with one another, but also dispute an assumed separation between science and politics. Epistemic questions – questions about research priorities, data collection methods, and the value and purpose of knowledge – are political questions that must be addressed directly rather than merely as social impacts of science. Lastly, attempts to link ecology and economy involve not only practical but also conceptual issues. If under conventional conservation, ecology is defined as nonhuman and economy as destructive to nature, how can these “spheres” be redefined to directly link ecology and economy in positive rather than zero-sum terms?

These difficulties have been explored by several research paradigms, including common property theory (e.g. Ostrom, 1990), social learning (e.g. Keen, 2006), political ecology (e.g. Brown, 1998), social constructionism (e.g. Steins, 1999), and resilience theories (e.g. Walker et al., 2002). Existing research tells us much about the role of local institutions in resource management, the importance of social capital, the role of common frameworks of understanding, the political and economic causes of unequal outcomes and the importance of resilience in coupled social-ecological systems. However, existing

research says little about the role of INRM as a complex, contingent and innovative process. That is, existing research paradigms tend to explain INRM outcomes with reference to particular principles, forces and structures – whether they are local institutions, global structures, cognitive frameworks, representational practices, or resilience – which are assumed *a priori*, rather than exploring INRM as a process that produces *new* principles, forces and structures. Researchers propose lists of conditions that need to be met if INRM projects are to be successful, draw on assumed structures of power to explain outcomes, and assume given groups with given interests. This approach is certainly highly valuable; however, it does not lend itself to an examination of process and innovation. The latter approach would inquire into how conditions, structures, interests and the like are *produced* in INRM projects. This is not to say that the latter approach is superior to or should replace the former approach, but that it can provide a useful complement, especially in the case of INRM which is still so new and innovative with respect to the very categories that are relied upon to provide explanations.

INRM projects provoke a reconsideration of accepted ways of understanding nature, society and their relationship. When new groups and coalitions form and interests shift and change, how can predefined groups and interests provide an explanation? When new economies are invented, how can economic structures provide an explanation? When the actors propose new principles, how can predefined principles be used to evaluate outcomes? When the actors produce new mixtures of humans and nonhumans, how can we explain the outcomes as consequences of social construction? When the actors design new political institutions, how can there be offered only explanations relying on assumed political structures? When the actors are busy redefining nature and

society in order to render them compatible, how can an over-arching theory of coupled social-ecological systems explain everything there is to be known?

As Latour (2005b) argues, when institutions, groups, interests and the like are established and stable, it makes sense to treat them as given and draw on the valuable concepts and theories that have been developed to explain them. However, “in situations where innovations proliferate, where group boundaries are uncertain, when the range of entities to be taken into account fluctuates [conventional forms of explanation are] no longer able to trace actors’ new associations” (Latour, p. 11). The question that conventional perspectives are not well equipped to answer is *how* INRM projects emerge and evolve, and *how* they generate *new* groups, interests, and institutions? How are a wide variety of public and private decision-makers, stakeholders, agencies, and nonhuman species drawn together in a common project, and how are their interests aligned? How do they generate power to create change? How do they create new knowledges? How do they design new economies? How do they work to reconcile ecology and economy? How can we take into account the wide variety of elements that go into an INRM project while withholding presuppositions about factors that influence outcomes?

Think of Roscoe Inlet [an inlet on the central coast] as the hub of a wheel, with spokes that reach all the way to the premier’s office, the corporate headquarters of logging multinationals, the foreign offices of some of B.C. wood exporters’ largest customers, the influential command centres of the most affluent philanthropic foundations in the U.S., environmental groups and First Nation chiefs and their councils. It has brought long-

standing combatants to the table to discuss, on more or less equal terms, the future of what is now widely recognized as one of the last great terrestrial conservation opportunities on the globe. (Findlay, 2007)

This study does not attempt to promote INRM as a superior approach to resource management, nor provide guidelines, principles or conditions that will lead to successful INRM. Rather, the purpose of this study is to engage in an in-depth exploration of the Great Bear Rainforest case in order to learn how this particular example of INRM emerged, developed, and evolved, and to elucidate how the processes involved in the production of new groups, new interests, new knowledges, new representations, new institutions, and new relationships with nonhumans arose. How was this particular place designated as a conservation opportunity? How did various groups come together to make decisions about it? How were these processes contested? How did actors go about trying to reconcile the interests of multiple human and nonhuman groups? My central focus is on the key processes of environmentalists, examining how they sought to redefine the central and north coasts as a scientific and political reality, how they went about convincing others to adopt their emerging vision of reality, and how their vision shifted and changed as a result. Specifically, my study has three primary objectives:

- **To examine how environmentalists gained the power to influence resource decision-making for coastal BC.**
- **To examine how environmentalists articulated science with politics in their attempts to influence the management of the GBR.**



- **To examine how environmentalists specified the conceptual link between nature and society as they sought to reconcile ecology and economy.**

In this study, I draw on conceptual tools developed by Latour and his colleagues, which are collectively referred to as actor-network theory (ANT) (Callon, 1980, 1986; Callon & Latour, 1981; Callon & Law, 1982; Law, 1986; Latour, 1987, 1988). I adopt this approach due to its ability to study innovative processes without making any presuppositions about what it may find. As I explain more fully in Chapter 2, ANT researchers avoid given categories of explanation – such as micro and macro, local and global, subject and object, agency and structure, reality and representation, and nature and society – to instead learn from the actors themselves how they fabricate their worlds. The primary focus of ANT scholars is on finding, exploring and examining how associations are established between entities and how the emerging network acts as a collective entity to produce new worlds. This approach promises to provide unique insights into power, science and nature.

First, a network approach explores power as an effect of networks, rather than an attribute of groups held on the basis of position in social structures (Law, 1992). That is, power is not seen to be determined in the last instance by economic structures (such as ownership of the means of production), ideological structures (such as collective forms of belief), cultural structures (such as distinction and taste), normative structures (such as functional norms and roles), or epistemic structures (such as the linkage between discourse, knowledge and power). Moreover, power is not considered to be something that is held by particular groups and wielded on the powerless. Rather, power is

conceptualized as the ability to achieve an outcome that can be realized only through the support of a network. In this understanding, power can be generated and taken away via constructing and intervening in networks. This view of power is similar to common understandings: some interests may be realized while others may not be realized, some groups may be included and others may be excluded, some included groups may be coerced into participating in projects that meet the needs of others. However, there are key differences: interests are re-defined through network formation, no one is in ultimate control of network

Second, ANT scholars (who originated in the field of science and technology studies) explore the production of knowledge about the natural world as a political process that involves strategic decisions, enlistment of support, and rhetoric; symmetrically, they examine the political process of determining the structure of the social as performed through many nonhuman objects and devices (Latour, 1998, 1991). For ANT researchers, science and politics do not pertain to two separate domains – nature and society – but to a single world constructed by networks (Latour, 2005b).

Following from this, and third of all, ANT provides tools to examine how humans and nonhumans are associated with one another without drawing on concepts of nature and society as explanatory resources. ANT scholars examine nature and society – if they exist at all – as outcomes of networks rather than their source. That is, they study how the actors go about conceptually purifying the networks that they construct, ignoring their heterogeneity and placing them into discrete categories of society and nature. The exciting implication of this approach for INRM – which is exceptionally innovative when it comes to re-specifying the link between nature and society – is that ANT can explore

how such projects reshuffle humans and nonhumans in ways that do not correspond to the concepts of nature and society.

## ***1.2 Overview of the Study***

By means of an examination of the processes through which issues of power, science and politics, and ecology and economy are dealt with in the GBR case, this study contributes to our understanding of key issues in integrated natural resource management. As noted above, the purpose of this study is not to derive sets of principles or guidelines that can be applied in the design of new INRM projects. Rather, the goal is to explore the emergence of an INRM project and its innovative processes while focusing on issues of power, science and nature. In particular, I will demonstrate that issues of power can be understood as processes of network formation and intervention that take place outside of official stakeholder processes. I will show that the production of knowledge for resource management is a simultaneously scientific and political process in which all actors that have a stake in what knowledge is produced can work together to articulate a form of “civic science.” Finally, I will show that the question of linking ecology and economy involves fundamentally reworking both categories in order to render them commensurable with one another.

I explore these issues by examining how the GBR agreement emerged and evolved as a process of network construction. The research reported in the following pages involves an in-depth, qualitative exploration of a case of INRM, based on 34

interviews with key participants in the GBR process, purposefully selected from environmental nongovernmental organizations (ENGOS), forestry companies, First Nations organizations, and mediators. It is also based on analysis of textual and audiovisual material associated with the case – including agreements (Land and Resource Management Plans, government-First Nations, ENGOS-industry, etc.), terms of reference, work plans, legal orders, presentations, reports (technical, organizational, workshops), scientific articles, ecological data, newsletters, press releases, news stories, public and customer information materials, campaign materials, histories and timelines, minutes and agendas of meetings, maps, videos, films, and radio interviews. The analysis details the work of environmentalists in enrolling a variety of human and nonhuman actors in their vision for the region, translating the interests of others into their own. It shows how environmentalists generated power by severing other groups from their networks and drawing them into their own. The study details the material and discursive means by which environmentalists went about constructing the network, showing how they intertwined science with politics. Additionally, the research shows how environmentalists eventually abandoned attempts to place the networks they convened into pre-existing concepts of “nature” and “society,” choosing instead to find ways to simultaneously promote ecological integrity and human well-being. Finally, the study shows that, while environmentalists worked hard to convene a network in order to realize their interests in protecting BC’s coastal forests, they lost ownership and control of the project’s direction as they enrolled other groups. Thus, environmentalists were also defined and translated by the network that they sought to create.

The study explores the value of a network perspective in analyses of INRM. As such, it does not examine issues of concern to other approaches, such as trust, social capital, social learning, resilience, and so on. Instead, this study attempts to complement other approaches by examining some of the ways in which a particular INRM project emerged and evolved, rather than drawing upon already established concepts, categories, and principles to explain and evaluate the case. As such, findings are restricted to this specific purpose. Nevertheless, the study contributes empirically to studies of INRM, providing substantial detail on the case of the GBR. This study will be a useful resource for practitioners and advocates of INRM as they seek to learn about the processes involved in developing such a project. Additionally, the research provides a contribution to INRM research and theory, demonstrating the value of a network approach to the topic. In particular, the study provides unique insight into issues of power and hierarchy, science and politics, and the relationship between society and nature. Finally, the study contributes to ANT scholarship by providing a full-scale ANT study of INRM.

In the next chapter (Chapter 2), I review the emergence of integrated natural resource management as a critique and response to conventional approaches to conservation. In this review, I point out the main problems associated with INRM (revolving around power, science, and nature) thereby specifying my research objectives. Touching on existing research paradigms employed in INRM research, I introduce the promise of actor-network theory as a complementary approach. I review the main features of ANT, address some of its critiques and show how it can be applied to the study of INRM. I end the chapter with a preview of the analysis contained in Chapters 4-7, which will be presented after a discussion of research methods in Chapter 3. Chapter

4 examines how environmentalists redefined the central and north coasts, materially and discursively, into a format that they hoped would generate interest in ushering in a campaign to save them. In this analysis and throughout, the material and discursive and not considered to be separate. I look at how environmentalists' production of meaning was produced through material means; moreover, I look at how new knowledges, meanings and truths produced new material outcomes for the coastal forests and the people connected to them. Chapter 5 looks at the efforts of environmentalists to get other groups – the BC wilderness preservation movement, forestry companies and First Nations – involved in their project. Chapter 6 analyses the negotiations and pushback involved as these other groups conditionally accepted their roles in the emerging network. Chapter 7 examines the procedures invented by the actors to reconcile their interests and to construct a common world. In the Conclusion, I summarize the main findings before returning to the issues raised in the introductory chapter and evaluating the ability of ANT to address them.

By the end of the analysis, readers will have learned much about how the GBR project was originally conceived and how it shifted and changed as it evolved. They will have travelled with the actors as they pulled together concepts and data from BC's coasts and from around the world and (re) defined the GBR into a new type of forest; with bears as they became the representatives of the coastal forest, protesting outside of forestry companies' offices and travelling around North America and Europe; with environmentalists as they traced and intervened in the commodity chain linking forests, forestry companies, and retail customers; with forestry companies as they joined environmentalists in a joint project; with First Nations as they translated the emerging

network into their own terms; and with lay stakeholders and experts as they worked to redefine ecology and economy. By the end of the account, readers will have witnessed the emergence of a network and will have had the opportunity to examine in detail the work that it performed to generate power, intertwine science and politics, and redefine the relationship between society and nature. Readers will have encountered a full-scale ANT study with which to evaluate the value of this approach to the study of INRM's particular problems.

## **2 Integrated Natural Resource Management and Actor-Network Theory**

### ***2.1 Introduction***

In this chapter, I examine research on natural resource management and actor-network theory. I find that natural resource management has shifted away from top-down, expert-led attempts to protect areas of land by excluding human use and occupation, and towards integrated approaches to conservation that seek to include stakeholders and reconcile human livelihoods with biological conservation. I also look at the issues that are associated with the newer approach to conservation, including power, the relationship between science and politics, and the specification of the link “between” nature and society. These issues define the research objectives of my case study of the GBR. Noting that conventional theoretical approaches to the study of natural resource management generally do not look at integrated projects as complex, contingent, and innovative processes, I propose to use actor-network theory as a complementary research approach. I argue that ANT has the ability to shed light on the process of integrated natural resource management and to capture the ways in which such projects construct new realities. While ANT scholarship can be drawn on to inform many different forms of natural resource management, the innovative nature of INRM – particularly its tendency to question an enforced separation between nature and society – make it a very useful development to study from an ANT perspective. Working through criticisms of



the approach, I discuss how ANT can help to provide unique insight into issues of power, science, and nature in INRM. I end the chapter with a preview of the analysis to come.

## **2.2 From “Fortress Conservation” to “Integrated Natural Resource Management”**

Traditional conservation projects attempted to protect biodiversity by excluding local populations from protected areas, prompting the characterization of this approach as “fortress conservation” or “fences and fines” approach<sup>1</sup> (Brown, 2002, p. 6). The approach has been extensively critiqued for its negative impacts on both people and ecosystems. One primary aspect of fortress conservation that has been critiqued is its reliance on unquestioned and apolitical “neo-Malthusian” beliefs (Adger et al., 2001; Bryant, 2001; Robbins, 2004). These beliefs – which underpin the contemporary environmental movement’s focus on limits (Nordhaus & Shellenberger, 2007) – suggest that human demands on natural resources, if left unchecked, will inevitably lead to the collapse of those resources (Malthus, 2005 [1798]; Hardin, 1968). This approach has been criticised as being apolitical (but secretly political)<sup>2</sup> since its logic rests on

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<sup>1</sup> The mirror belief held by development activists is that conservation produces a direct threat to local livelihoods.

<sup>2</sup> No attempt to control human behaviour with respect to the environment can be considered apolitical (Latour, 2004, p. 28). Indeed, Malthus’ own thesis was written as a polemic against charity for the poor: his idea was that charity might be misplaced since it would result in overpopulation of dependent populations, and eventually national bankruptcy. Hardin’s thesis is written as a polemic against open-access resources, but ignores the fact that the allocation of property rights to previously “common” land – as in the case of the enclosures of the commons in England – alienated land held in common in order to place it in private hands. It also ignores the fact that collectives have in many

supposedly impersonal laws that direct human behaviour (Robbins, 2004). Critics have argued that fortress conservation alienates land from local resource users, distributes the costs and benefits of conservation unequally, and generally impoverishes, disenfranchises, and disempowers already disadvantaged groups (Robbins, 2004). Often, according to critics, conservation projects are implemented in a top-down, exclusionary, expert-driven manner (Holling, 1996), thus further alienating local groups and leading to inevitable conflict (Adger, 2001; Brown, 2002). Moreover, researchers in the social sciences and humanities have pointed out that the object of conservation – “pristine wilderness” – is a myth created by western conservationists while places designated for protection often have long histories of human occupation and use (Cronon, 1996b). Critiques have not been limited to issues of social equity and social ideas, however. Critics have also pointed out the inadequacy of fortress conservation from the perspective of ecological integrity. They’ve argued that this strategy for wilderness preservation does little to address land use outside of protected areas, thereby resulting in ecological fragmentation (MacArthur & Wilson, 1967; Diamond, 1975; Harris, 1984; Saunders, 1991). Protected areas become biological islands unconnected with one another and too small to sustain important species. Consequently, rather than preserving biodiversity, protected areas can perversely contribute to its decline.

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instances developed effective formal and informal rules for managing common property resources (Agrawal, 2001; Berkes, 1989; Dietz, 2003; Ostrom, 1990). More recently, the “politics of limits” at the core of contemporary environmentalism have been under attack from a variety of positions, for both their inability to deal with new environmental problems and their inadequate focus on social justice (Braun and Castree, 1999; Latour, 2004; Nordhaus and Shellenberger, 2007; White and Wilbert, 2009).

In response to these perceived failings, new approaches to conservation have begun to emerge since the 1980s and early 1990s. These approaches have been bolstered through the articulation of the concepts of “sustainable development” and “public participation” by the UN World Commission on Environment and Development (Brundtland, 1987) and Agenda 21 of the 1992 UN Conference on Environment and Development (United Nations. Dept. of Public Information, 1993).<sup>3</sup> As Brown (2002) notes, “traditional, top-down exclusionary approaches to protected areas [...] are not sustainable, and are not conducive to notions of sustainable development” (p. 6). In response, Brown continues, “new approaches to the design and management of protected areas, primarily in terms of attempts to integrate protected areas into the economic and social context locally, regionally and nationally, have been designed and implemented” (p. 6). These new approaches – which fall under the category of what I will refer to here as “integrated natural resource management” (following Bellamy et al, 1999) – can be roughly grouped into the terms that have come to be associated with the concept of *sustainability*, which is commonly represented as resting on three “pillars”: the social, the economic, and the ecological (Blackburn, 2007). In the area of integrated conservation and development, these pillars are translated as “populist,” “neoliberal,” and “ecological,” respectively (see, for example, Blaikie & Jeanrenaud, 1997, and Hulme & Murphree, 1999).

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<sup>3</sup> I do not wish to imply that these developments constitute a “context” within which new approaches to conservation developed: rather, I recognize that they are articulated with them in traceable ways. The concept of sustainable development can be critiqued and its articulation in particular places mapped (see, for example, Bryant, 1991; Escobar, 1996; Selman & Wragg, 1999; Ellis & Waterton, 2005). However, for the purposes of this review, I am treating these concepts as “black boxes” (see Latour, 2005: 11).

*Populist* approaches to wilderness protection focus on the participation of impacted social groups in resource management decision-making. Projects go under a variety of names, such as collaborative resource management, collaborative conservation, collaborative planning, participatory resource management, participatory environmental governance and grass-roots ecosystem management. Perhaps the most general term is community-based natural resource management (CBNRM) (Conley & Moote, 2003, p. 372). Conservation projects of this type have grown out of dissatisfaction with entrenched conflict and the adversarial nature of resource management (Coughlin et al., 1999, pp. 2-3). Particularly in the US, resource management decisions tended to become bogged down in lengthy court challenges (Wondolleck et al., 1994). In response, advocates for CBNRM have argued that citizen participation in decision-making processes would ensure that a full range of values were considered upstream, focusing efforts on “win-win-win” outcomes that would thereby prevent later conflict (Weber, 2000, p. 238). This approach, part of a wider trend in participatory environmental governance (Bulkeley & Mol, 2003), seeks to devolve decision-making authority from centralized governmental departments to a wide range of stakeholders.

*Ecological* approaches to conservation have developed in the fields of conservation biology and landscape ecology. Conservation biologists have argued that protected areas were too small and isolated to adequately preserve biodiversity (MacArthur & Wilson, 1967; Diamond, 1975; Harris, 1984; Saunders, 1991) while landscape ecologists have problematized the idea of stable, pristine, nonhuman environments by drawing attention to processes of disequilibrium, flux and chaos (Worster, 1990; Zimmerer, 2000). These developments converge on the concept of

*ecosystem management* (EM) (now more commonly referred to as *ecosystem-based management* [EBM]). EBM involves a shift from resource management – which focuses on maximizing the outputs of a single value (e.g. wood fibre) – to the management of the processes and functions that maintain healthy ecosystems (Cortner & Moote, 1999, p. 37). While the principles underlying this shift date at least as far back as Aldo Leopold’s (1949) “land ethic,” the concept did not gain saliency in resource management until the mid-to-late 1980s (Grumbine, 1994, p. 28; Czech, 1997, p. 671). As noted by Pavlikakis and Tsihintzis (2000, p. 258), “as sustainability has become an explicitly stated goal by many governmental, public or private resource management agencies, E[B]M has arisen as the new approach focusing on sustainable development.” Healthy ecosystems are considered to be supportive of a range of social, economic and ecological values: thus, ecosystem management can support the goals of sustainable development.

Importantly, in this conception, the role of humans in relation to nature shifts. As noted by Grumbine (1994), “along with defining the ecosystem management approach as a new policy framework there appears to be a parallel process of redefining the fundamental role of humans in nature” (p. 28). This new role is enabled by a reconsideration of the “balance of nature” view inherent in the fortress conservation approach. In particular, flux, disturbance, and disequilibrium have become more prevalent ways of describing ecological processes in ecology (Holling, 1973; Worster, 1990), leading some to describe the emergence of a paradigm shift in ecology (Botkin, 1990; Berkes, 2004). Moreover, just as natural events, such as storms, fires and insect outbreaks cause disturbance in forests, so do humans (Worster, 1990; Walker et al., 2002). This view, in addition to the recognition that biodiversity conservation requires

the management of large areas that include human populations, results in the commonly held perspective among EBM advocates that humans are part of ecosystems (CIT, 2004, p. 9).

*Economic, or neo-liberal* approaches to conservation focus on mechanisms that link ecology and economy in an attempt to “address biodiversity conservation objectives through the use of socio-economic investment tools” (Hughes & Flintan, 2001, p. 4). Blaikie and Jeanrenaud (1997) have referred to these approaches as “neo-liberal” since they are linked with wider developments in which governments devolve traditionally centralized decision-making to market forces. However, relaxation in government control has opened up new avenues for environmental governance among non-state actors (Cashore 2002, p. 506). Moreover, one key set of initiatives, referred to as *Integrated Conservation and Development Projects* (ICDPs), ties themselves to social equity and justice at the same time as it promotes ecological conservation. As such, they involve “an almost complete convergence with sustainable development thinking” (Hughes & Flintan, 2001, p. 4). ICDPs originated with the World Wildlife Fund’s “Wildlands and Human Needs Program,” launched in 1985. The program explicitly sought to address the shortcomings of traditional approaches to wilderness conservation by ensuring that conservation projects addressed the development needs of local populations. ICDPs have been implemented primarily in developing countries and no projects of that name are found in North America (although CBNRM projects share similar beliefs and objectives). They range from attempting to provide local populations with the infrastructure to meet their basic needs, to providing alternatives to resource-dependent livelihoods, to ensuring that local populations have a stake in resource management decision-making.

## **2.3 Integrated Natural Resource Management in BC**

While the GBR agreement is represented as being “unprecedented,” some of the trends of INRM have been well established in BC for some time. Environmentalists and First Nations have long criticized conventional resource management decision-making in BC. Forestry resource decision-making has historically been centralized in a “compact” between the Provincial Government and forestry companies since the 1940s when the policy of “sustained yield” was instituted (Marchak, 1983; Wilson, 1998). Environmentalists and First Nations began to challenge forestry policies in the late 1960s and early 1970s, arguing that cutting rates were far from sustainable, that resource decision-making over public lands was undemocratic, and, in the case of First Nations, that jurisdictional issues were not settled (Williams et al., 1998). By the 1980s, these disputes erupted into what the news media dubbed the “war in the woods” (Hayter, 2003). Entrenched conflict connected to a series of logging blockades and public protests prompted the Provincial Government to experiment with more inclusive and participatory forms of resource decision-making such as advisory committees, task forces and community consultation (Tanis et al., 2004, p. 62). Informed by the concept of “sustainable development” (McManus, 2002, p. 853), these early attempts were reformulated by the Provincial Government into the Commission on Resources and Environment (CORE, see Owen, 1998). Subsequently, due to dissatisfaction with CORE’s poor progress, the Land and Resource Management Planning (LRMP) process superseded CORE (Jackson & Curry, 2004, p. 33). In addition to goals of reducing conflict and promoting sustainability with respect to the management of BC’s natural

resources, the LRMP process was specifically designed to foster stakeholder participation in resource management decision-making (Government of British Columbia, 1996).

Included in critiques of BC's resource management "compact" has been its narrow focus on timber to the exclusion of wider ecological and human interests (Cashore, 2001). Some began to call for wider, more holistic approaches to forestry management (Hammond, 1991, 1997; Hoberg, 2001, p. 63) following the lead of the US, where ecosystem management has been widely adopted, including by the US Forest Service and the Bureau of Land Management (Szaro et al., 1998; Pavlikakis & Tsihintzis, 2000). However, adoption of EBM in Canada has been sparse. According to a recent review (Nantel et al., 2003), very few ecosystem management applications have been reported in peer reviewed literature and the authors were able to identify only 30 projects "that met the criteria of ecosystem management of forest lands" (p. 4). The application of the concept in BC is restricted to the recommendations of the Clayoquot Sound Scientific Panel (Cashore et al., 2001, p. 250).

However, there are also differences between the situation in BC and wider developments in resource conservation – particularly with respect to the question of local livelihoods. First, threats to biodiversity do not arise from local populations, but from forestry companies and forestry workers located elsewhere in the province, as well as from customers of BC forest products located elsewhere in the world. Nevertheless, economic development opportunities for local people – First Nations – are a key part of the GBR solution. Second, while local First Nations are economically disadvantaged in comparison with other Canadians and often live in conditions similar to those in the Global South, Canada is a developed country – a first for ICD projects which have taken



place exclusively in developing countries. Third, while First Nations are economically disadvantaged, recent legal developments have recognized considerable rights and title, and the Provincial Government has (lately) begun to recognize First Nations as key decision-makers regarding resources in their traditional territories.

## ***2.4 Key Controversies in Integrated Resource Management: Defining Research Objectives***

While INRM represents an important evolution in resource management, it comes with problems of its own. It is worthwhile to examine these problems in order to see what an in-depth analysis of the GBR case can illuminate about INRM as a whole. One of the key critiques of integrated resource management has been focused on its simplistic and under-theorized view of community and participation. In particular, some of the early projects were criticized for assuming that communities are homogenous, and for thereby neglecting to take into account internal conflict and unequal power relations (Brosius et al, 1998; Agrawal, 1999). Moreover, by defining communities as small, bounded entities, projects neglected to take into account the influence of important nonlocal actors (Brown, 2002, p. 10). The consequences of this oversight, according to critics, is the tendency for projects to exacerbate existing power differences (Brosius et al., 1998) and, consequently, for the interests of some parties to become co-opted during the process (e.g., Modavi, 1996). Indeed, according to critics, stakeholder processes have often been perversely top-down in practice, with predefined agendas and outcomes that result in a passive role for groups with little power (Brown, 2002, p. 11). One of the key

questions for inherently unequal stakeholder processes is representation: who is empowered to speak on whose behalf (Coughlin, 1999, p. 9). Often, “stakeholders” are predefined with their interests assumed as clear and fixed (Daniels, 1996), leading to a neglect of the importance of group formation and network building (Mahanty, 2002).

While BC has experimented with various forms of stakeholder involvement in natural resource management decision-making since the 1980s, BC environmentalists have long been critical of such attempts. In particular, environmentalists have argued that processes such as the LRMP scatter the environmental movement into numerous, unconnected processes; sap the energy and resources of environmental organizations; lead to public apathy since they see that environmentalists are part of decision-making processes; co-opt environmentalists’ demands due to the need for compromise and support for consensus decisions; and distract environmentalists from direct activism, all the while logging continues in the areas under discussion (Salazar & Alper, 1996; Wilson, 1998).

Therefore, one of the key issues that need be explored in integrated resource management is how the actors negotiate power. Conservation projects can assume neither that communities are homogenous, nor that power differences can be resolved by the structure of the project itself. For this reason, it is useful to learn from the actors themselves how they resolve issues of power inequality. How do groups engage in stakeholder processes if they feel that they have an unequal ability to influence decisions? How do groups gain power to influence decision-making? Who are the relevant actors? Are all relevant actors “local” or are some stakeholders located in distant yet connected places? Are official processes the most appropriate places to conduct negotiations if

stakeholders do not have the same degree of influence? These questions need to be explored in order to understand how “stakeholders” participate in CBNRM. **The first objective of this study is to examine how environmentalists gained the power to influence decision-making beyond that afforded to them by the LRMP process as it was originally designed.**

A second key controversy with integrated management is how to integrate multiple knowledges in resource management projects (Selman & Wragg, 1999, p. 650; Folke et al., 2005). Integrated management rejects top-down decision-making by “experts” in recognition of scientific uncertainty and in favour of the democratization of science (Cortner & Moote, 1999, p. 84; Ludwig, 2001; Berkes, 2004). Yet, according to Agyeman and Angus (2003), “despite the rhetoric, many local sustainability projects or attempts to encourage the development of sustainable communities are still top-down, expert led processes that fail to genuinely engage local citizens” (p. 346). For example, critics have charged that new approaches to resource management such as ecosystem-based management are so complex that only experts have the ability to make authoritative claims (Cooperrider, 1996). Perhaps the reason for this is that the practice of “civic science” (Lee, 1993) has been poorly defined (Wilson et al., 1999; Bäckstrand, 2003, p. 24). In one sense of the term, civic science – the attempt to “to connect natural science and politics in the pursuit of sustainability” (Plummer, 2006, p. 10) – involves bringing well-defined knowledge and technical information (or “the facts”) to environmentalists, policy-makers and a range of stakeholders to inform resource management decision-making processes. In this sense, science plays an advocacy role by imparting knowledge and information; but this knowledge and information may still be

delivered in a top-down, expert led manner. In another sense of the term, civic science involves the participation of multiple groups in asking and answering key research questions (Cortner, 2000, p. 27; c.f. Latour, 2004, and Callon et al., 2009). In this sense, science becomes an “increasingly interactive process between lay and expert people, reconnecting science and its cultural context” (Warburton, 1998, p. 3, cited in Agyeman & Angus, 2003, p. 355). In particular, according to Cortner (2000) “the civic science model democratizes expert cultures. It emphasizes learning among participants, and is highly collaborative” (p. 27).

The articulation of science with politics has become increasingly prominent in BC natural resource management. For one, environmentalists have learned a great deal about the science and economics of forest management through participation in stakeholder processes (Wilson, 1998, p. 211). But more importantly, according to Kranjc (2002), the 1990s saw BC become the site of civic science as conservation biologists teamed up with environmentalists to advocate the protection of core habitats and alternative land use planning processes in Clayoquot Sound and the GBR. Kranjc’s analysis suggests that the scientific reality of coastal ecosystems was brought to light for political purposes, and thus that science and politics were *externally* linked together. As such, it conforms to the first sense of civic science given above since it treats science and politics as *internally* distinct from one another. By contrast, I will explore the second sense of civic science given above, and examine the extent to which the GBR case intertwines science and politics – from problem definition to collaborative knowledge projects. According to the conventional view of both scientific objectivity and expert-driven models of resource policy-making, science and politics need to be kept separate from one another – even if

the former is to direct the course of the latter. However, criticism of the top-down model entails a reworked understanding of the relationship between these two “spheres.” Is it necessary to keep science and politics separate from one another? Is it possible? Is it desirable? If science and politics are intertwined, how can their intertwining be done properly? **The second objective of the study is to examine how environmentalists articulated science with politics in their attempts to influence the management of the GBR.**

A third issue in integrated resource management has to do with unclear assumptions about the conceptual linkage “between” conservation and development (Salafsky & Wollenberg, 2000; Brown, 2002). While integrated resource management explicitly moves away from models that separate people and environment via fortress conservation, early alternatives linked conservation and development indirectly through the provision of substitute economic opportunities (Wells & Brandon, 1992; Salafsky & Wollenberg, 2000; Brown, 2002)<sup>4</sup>. By contrast, more direct linkages were made in the 1990s (Western & Wright, 1994) with projects such as nontimber forest product harvesting or tourism enterprises that provide opportunities for local people to directly benefit from biodiversity and for livelihoods to drive conservation (Salafsky & Wollenberg, 2000, p. 1425). The shift from indirect to direct linkages between conservation and development involves not just a practical but also a profound conceptual shift. Under the fortress conservation approach, ecology and economy are

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<sup>4</sup> For example, the UNESCO Man and the Biosphere Program’s Biosphere Reserves included the idea of “buffer zones,” or economic development zones surrounding protected areas. These zones are designated for economic opportunities – such as coffee plantations and agricultural production – that provide alternatives to direct exploitation of resources in protected areas.

defined as mutually exclusive: economic development, by its very nature, entails ecological destruction; correspondingly, ecological protection, by its very nature, entails the destruction of economic development opportunities and local livelihoods. Indirect linkages between conservation and development represent an alternative approach to conservation, but keep these basic set of assumptions in place: biodiversity must be protected from economic activities; by providing substitute activities outside of reserves, pressure will be removed. The shift to direct linkages, by contrast, fundamentally alters basic beliefs about ecology and economy, suggesting that ecology can be promoted *via* economic development, and that economic development can proceed *by means of* conservation. This approach builds on the “win-win-win” approach envisioned by the Brundtland Commission, but veers sharply away from a trade-off model that is implicit in the Commission’s report. Rather than finding a “balance” between two opposing forces, the direct linkage approach to conservation and development consider these two things to be in a positive sum relationship. Thus, the key question here is: to what extent do projects such as these avoid *dualistic* forms of thinking about society and nature?

In BC, conflicts between advocates of wilderness preservation and proponents of economic development through forestry are very entrenched (Marchak, 1983; Wilson, 1998; Stansbury, 2000). These conflicts have often been analysed as resting on a *dualistic* logic that pits pristine nature against society, ecology against economy. For example, Willems-Braun (1997) argues that forestry companies’ and environmentalists’ representational practices frame the conflict over BC’s forests as an opposition between jobs and the environment. Similarly, Stefanick (2001) argues that actors in the conflicts over BC’s forests frame humans as separate from and superior to nature and,

simultaneously, as dependent on a non-exploitative relationship with nature. Doyle et al. (1999) argue that the primary frame deployed by the forestry industry in the early 1990s was one of “trees versus jobs,” contending that this frame is connected to a more general “nature versus people” frame. Finally, Rossiter (2004) argues that environmentalists constructed an image of “pristine nature” that “leaves no room for human economy, technology or politics” (pp. 151-52). The key question concerns the extent to which actors in the GBR reproduce dualistic framings of the relationship between society and nature and the extent to which they avoid such framings to propose new types of relationships ‘between’ ecology and economy. **The third objective of the study is to examine how environmentalists specified the conceptual link between nature and society while seeking to reconcile ecology and economy.**

## ***2.5 Researching Integrated Natural Resource Management***

A number of research perspectives have been deployed to study integrated natural resource management, including common property, social learning, political ecology, social constructionism and social-ecological systems. These perspectives have afforded numerous insights into resource management issues. For example, *common property* researchers have shown that private property and state management are not exhaustive forms of resource management and have documented many cases in which local institutions have emerged to effectively and sustainably manage resources (McCay & Acheson, 1987; Berkes, 1989; Ostrom, 1990; Matthews, 1993; Agrawal, 1999). This

insight is of special significance in the current trend to decentralize resource governance and develop local stakeholder forms of governance (Agrawal, 2002, p. 41; Blomquist, 2010). Building on acknowledgement of the role of social capital in local resource management (Pretty, 2003), *social learning theory* suggests that strong networks and trust enable groups to explore and challenge their beliefs as they work toward a common understanding of the problem, agreement, and collective action (Daniels, 1996; Maarleveld & Dangbegnon, 1999; Shusler et al., 2003; Bouwen, 2004; Pahl-Wostl, 2004, 2007). As a corrective to the tendency of common property, social capital, and social learning approaches to focus primarily on the local level, *political ecologists* have examined the influence of external structures and forces on resource management projects (Cockburn & Ridgeway, 1979; Blaikie & Brookfield, 1987; Peet & Watts, 1996; Bryant & Bailey, 1997), focusing in particular on how the unequal distribution of costs and benefits of conservation projects reproduce existing economic and political inequalities (Paudel, 2006), such as the displacement and dispossession of local people (Geisler, 2003; Rangarajan & Shahabuddin, 2006). While political ecology originally tended to focus on the material determinants of unequal outcomes, some have attempted to avoid structuralist and determinist accounts by focusing on the role of language in resource management (Bryant, 2001, p. 162; see also Braun & Wainwright, 2001) and how particular visions of nature and the environment are imposed on landscapes and people (Escobar, 1998; Peet & Watts, 2004). This latter focus is the main interest of social constructionist analysis of nature and resource management, a paradigm well-represented in environmental sociology (Greider & Garkovich, 1994; Hannigan, 1995; Eder, 1996; Macnaghten & Urry, 1998;), geography (Evernden, 1992; Castree & Braun,



2001; Castree, 2005), anthropology (Escobar, 1995; Neuman, 1998; Tsing, 2001), history (Cronon, 1983; Worster, 1994; Oelschlaeger, 1996) and other cognate fields (Cronon, 1996a). Finally, *resilience theory* has redirected attention away from “command and control” approaches to resource management (Holling, 1996) and toward recognition of the linkages between social and ecological systems and the need for resilience in the face of inevitable change and system disturbance (Berkes & Folke, 1998; Gunderson & Holling, 2001; Holling, 2001; Gunderson & Prichard, 2002; Berkes et al., 2003; Folke, 2006).

While these research paradigms are rich, diverse and very productive, they tend to leave certain elements of INRM unexplored. In particular, they tend to focus on explaining outcomes rather than exploring processes (Parkins & Mitchell, 2005, p. 531), and to put forward factors, principles or theoretical forces that are posited to influence outcomes in any given case, thereby neglecting to base explanations on close analysis of the complex and contingent features of particular cases (Steins, 2001, p. 18). For example, the common property approach lists up to 35 principles that must be in place for INRM to be a success (Agrawal, 2001, p. 1651), thereby neglecting to study the contingent nature of particular cases. Social learning perspectives examine particular cognitive mechanisms whereby groups achieve a common understanding without analyzing processes of conflict and discord – which often take place before consensus is achieved – including processes of coercion involved in getting others to see the problem in a common way. Political ecology relies on *a priori* assumptions about the political factors that are involved in producing environmental changes (Vayda, 1999), thus neglecting to focus on how factors important to changes are constructed in particular

cases. Social constructionism assumes that INRM can be analysed purely as a social process of language use and representational practice, without taking into account the role of nonhumans (Benton, 1994; Dunlap & Catton, 1994; Martell, 1994; Murphy, 1994; Soulé & Lease, 1995; Dickens, 1996).

The common shortcomings of these approaches, although small, are important since they deflect attention away from integrated natural resource management as an innovative and complex process that is highly contingent on local circumstances (Vayda, 1999; Steins, 2001; Heikkila, 2005). INRM brings together a wide and complex variety of elements that need to be connected with one another in ways that support sustainable outcomes. Multiple agencies, public and private decision-makers and stakeholders of all sorts – some of whom are nonlocal (Brown, 2002; Mahanty, 2002) – must be stitched together in ways that are sensitive to issues of power and inequality (Selman & Wragg, 1999b, pp. 649-650; Harrington et al., 2008, p. 201). Moreover, these groups are connected not only with each other but also with multiple nonhumans, such as bears, trees, and aquatic ecosystems (Woods, 1997, p. 322). Indeed, INRM crosses multiple jurisdictional, spatial, temporal, and conceptual boundaries, linking such disparate things as economies, livelihoods, rights, sciences, politics, ecosystems, governance, equity, and values – across entire regions and with a view to achieving future states of sustainability. The result is a form of “hybrid governance” in which states, markets, and civil society actors all participate (Lemos & Agrawal, 2006; see also Cashore, 2002). For these reasons, it is fair to say that “resource management is a heterogeneous network” (Holne, 1999, p. 5). Seeing INRM in this way entails a significant emphasis on relationships, negotiation, and network building (Mahanty, 2002, p. 1383; Ali-Kahn & Mulvihill, 2008,

p. 1991). Questions arise with respect to how networks are assembled, how elements become connected with one another, and the transformations they undergo.

Moreover, actors and issues will be unique to each case, drawing attention to the contingent and uncertain nature of INRM (Mehta et al., 1999; Steins, 2001; Vayda, 1999). This entails that attempts to predict and explain cases with *a priori* theoretical presuppositions, or with lists of characteristics and success factors derived from other studies, should be balanced with attention to the details of individual cases and how they unfold. Indeed, the uncertain, complex, and contingent nature of individual INRM plans suggests that the latter strategy might be given precedence over the former, at least to counteract the opposite tendency of existing research. In other words, “the current emphasis in the conservation arena on what conservation programs do, should be balanced with attention to how conservation programs are undertaken” (Mahanty, 2002, p. 1383). A focus on how conservation programs evolve and develop can provide an understanding of how and why the characteristics and factors associated with particular projects are formed and why actors come together to produce them. According to Heikkila (2005, p. 584) “scholars who study large-scale collaborative efforts have focused more on defining the characteristics of collaboration and the factors that make them successful than on what brings actors together in the first place [...] In other words, the factors that support the formation of these institutions are not well understood.” One way of assessing how resource management projects develop and unfold is to follow a conservation proposal from its very inception and investigate the ways in which actors attempt to actualize it. This would involve focusing on how an “intervention proponent

[initiates] interest in a core set of ideas and practices and build[s] a network of actors to sustain the idea, technology or practice” (Mahanty, 2002, p. 1375).

Therefore, an approach is required that would study INRM as an innovation – that is, something not yet well known and that must therefore be explained in its own terms. INRM projects not only assemble a complex, contingent and heterogeneous array of entities, domains, and issues, but also produce new worlds: new social groups, new shared understandings, new knowledges, new economies, new relations with nonhumans. Accordingly, the approach would have to avoid making assumptions about society, nature, or their relationship. As mentioned above, the range of actors is often wider than usually taken into account in INRM studies (Mahanty, 2002, p. 1370; Morris, 2004, p. 178; Brown, 2002). Consequently, “a framework of analysis is required that allows a diversity of actors, and the interactions and relations between them, to be investigated” (Morris, 2004, p. 178). Moreover, as networks of actors come together in support of conservation projects, they often form new groups and coalitions. As a result, actors’ perceptions, attitudes, and even interests shift and change. As a corrective to the common “assumption that the participants’ interests are largely fixed and that the best one can hope for is a grudging compromise that perhaps satisfies no one,” (Daniels, 1996, p. 74) studies of INRM can focus on how interests are formed and changed through interactions. INRM also focuses on combining and reconciling the “interests” of humans and nonhumans. Accordingly, research can focus on how interests – whether human or nonhuman – are produced and how they shift and change.

In the next section, I will present the main concepts and features of an approach little known to INRM – termed “actor-network theory” – which promises to account for

the complexity and contingency of innovative conservation projects in ways not well accounted for by other approaches. As I will explain, ANT is able to focus on important actors without ignoring nonlocal actors; to give an account of power that is sensitive to the contingencies of the case; to focus on joint knowledge production and constructions of nature without reducing them to cognitions or discourse; and to account for nonhumans in ways other than those dictated by a global, overarching theory. In particular, ANT can adequately address INRM's fundamental challenge to the fortress conservation view that nature is separate from society – without presuming the factors that enable it to do so *a priori*.

In this discussion, I do not wish to suggest that ANT and INRM are coterminous, or that the latter somehow derives from the former. ANT concepts can be used to illuminate the processes involved in many forms of natural resource management, past and present. However, some features of INRM – particularly its innovations with regard to power, science, politics, nature and society – help to render explicit what might otherwise remain implicit (or “black-boxed”) in other approaches. As preceding sections have indicated, INRM renders particular assumptions problematic: that power is held on the basis of particular social structures (since the purpose of INRM is to redistribute power), that nature and society are separate ontological domains (since INRM argues against separating nature and society), and that science and politics pertain to separate realities (since in INRM they are brought together in the form of “citizen science”). As I will show in the next section, ANT provides conceptual tools that explore alternatives to these assumptions.

## **2.6 INRM as Network-Building: The Promise of Actor-Network Theory**

Actor-network theory is the name given to a set of post-structuralist ideas and concepts developed in the field of science and technology studies by Bruno Latour, Michel Callon, and John Law to explain how knowledges, technologies, and actors are produced (Callon, 1980, 1986; Callon & Latour, 1981; Callon & Law, 1982; Law, 1986; Latour, 1987, 1988)<sup>5</sup>. Reacting against what these authors considered to be over-socialized accounts of science and technology (Bloor, 1999, p. 83) – namely, accounts that failed to consider the specific power of science (Murdoch, 1997, p. 734) – Latour, Callon, and Law developed a novel form of analysis that allows researchers to avoid a methodological choice between internalist and externalist explanations of knowledge and technology; that is, a choice between explanations resting *either* on the internal cognitive and technical content of science and technology *or* explanations deferring to the external social, economic, and political “context” (Latour, 1983). In particular, early studies of Louis Pasteur’s knowledge of the anthrax bacillus (Latour, 1988), France’s failed experiment with the electric vehicle (Callon, 1986), biologists’ attempt to domesticate scallops (Callon, 1968), and the methods of navigation in long-distance maritime travel (Law, 1986), all sought to explain science and technology as outcomes of interactions

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<sup>5</sup> As its main proponents are often at pains to explain, ANT is not a coherent framework or theory that can be “applied” to the study of social and natural life, but a loose collection of ideas that shifts and changes depending on how they are taken up (Latour, 1999a; Law, 1997). Perhaps for this reason, and also due to the fact that they bypass usual conceptual distinctions, the concepts have been confusing for critics. leading one critic to speak of Latour’s work as “obscurantism raised to the level of a general methodological principle” (Bloor, 1999: 97)

among *heterogeneous networks* of actors (Law, 1992, p. 2). For example, “instead of clearly dividing science from the rest of society,” Latour’s (1988) study of Pasteur “makes no a priori distinction among the various allies” – including microbes, farmers, laboratories, social movements and veterinarians – that were assembled to produce knowledge about anthrax.

The key idea supporting this move is the ontological proposition that things – whether “facts,” technologies, or actors – emerge as outcomes of processes that assemble heterogeneous elements into stable networks. In the words of Law (2008),

Actor-network theory is a disparate family of material-semiotic tools, sensibilities and methods of analysis that treat everything in the social and natural worlds as a continuously generated effect of the webs of relations within which they are located. It assumes that nothing has reality or form outside the enactment of those relations. [...] [T]he actor-network approach thus describes the enactment of materially and discursively heterogeneous relations that produce and reshuffle all kinds of actors including objects, subjects, human beings, machines, animals, “nature,” ideas, organisations, inequalities, scale and sizes, and geographical arrangements. (p. 142)

ANT thus replaces concepts of social actors and nonhuman things with the concept of the “actor-network”: entities are produced through the actions of the elements that comprise them; those elements, in turn, can be ascribed with “actor” status only by virtue of their connections with other elements in the network.

Although this novel approach associated with ANT was originally developed in the field of science and technology studies, numerous other fields have realized its potential, including (*inter alia*) anthropology, economics, feminism, geography, organizational sociology, social psychology, media studies, performance studies, political theory, sociology of globalization, sociology of tourism, and the philosophy of science

(Saldanha, 2003, p. 421). When it comes to recognizing the potential of ANT to study interactions among people and the environment, geographers have been at the forefront (Bingham 1996; Hinchliffe, 1996; Thrift, 1996; Murdoch, 1997, 1998; Whatmore, 1997, 2002; Demeritt, 1998; Castree, 2001, 2003; Braun, 2002). Environmental sociologists, on the other hand, have been slow to take up the perspective, with the main bulk of advocacy coming from a geographer (Murdoch, 2001; but see also Lockie & Kitto, 2000, and Lockie, 2004, for sociological advocacy of ANT in agricultural research).<sup>6</sup> Examples of ANT-inspired research relevant to INRM are few; those that do exist come from geography (Davies, 2002), environmental science/studies (Holn, 1999; Harrington et al., 2008), collaborations between geography and environmental science/studies (Comber et al., 2003; Beveridge & Guy, 2009), planning (Hillier, 1998; Kitchen, 2000; Selman, 2000; Selman & Wragg, 1999a, 1999b; MacCallum, 2008), and development studies (Mahanty, 2002). Only one self-identified environmental sociologist draws on the tools of ANT to study collaborative processes in environmental management, although it is in a study of the assessment of large dams within the environmental impact assessment process (Lockie, 2007).

Nevertheless, ANT holds great potential for the study of INRM, including, as I will explain below, a particular sociological contribution. In particular, ANT promises to provide a way of investigating innovation – with respect to complex new relationships among humans and nonhumans – in ways that are not available in other approaches

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<sup>6</sup> Some environmental sociologists, such as Irwin (2001) do speak about “co-construction” but do not specifically align themselves with actor-network theory.



(Steins, 2001).<sup>7</sup> ANT investigates innovation by systematically refusing any and all presuppositions, and instead attending to things in their specificity to learn how new relations, patterns, and beings emerge. In particular, ANT scholars avoid common assumptions that reality is ordered in a series of dualisms between society and nature, micro and macro, subject and object, agency and structure, and reality and representation. Spheres such as these, according to ANT scholars, do not exist as given features of reality, but are produced through processes – largely performed by academic disciplines but also in common venues such as daily newspapers – that “purify” the underlying heterogeneity of the networks on which they rest (Latour, 1993).<sup>8</sup> Indeed, according to actor-network theorists, nothing exists in itself. Rather, “everything in the social and natural worlds” is produced or constructed – and is thus the effect of the performances of the network that sustains them.

One consequence of the claim that nothing exists in itself, but is constructed by networks of humans and nonhumans, is that nothing can be said to have an essence, nor be reducible to any other essential thing. As Law (1992, p. 7) argues, ANT is “a semiotic machine for waging war on essential differences.” Anything that is assumed to have an essential nature, whether it is a scientific fact, a piece of technology, a human being or an organization, can in practice be analyzed for the things that constitute it. The solidity and stability of things is merely provisional, as can be witnessed when the networks that

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<sup>7</sup> Indeed, Latour (2005: 9) even considered re-labelling actor-network theory the “Sociology of Innovation.”

<sup>8</sup> Latour’s (1993) use of the term “purify” refers to the ways in which some elements of heterogeneous networks are systematically ignored or conceptually excluded. For example, when placing a “fact” in “nature,” the human work involved in its production becomes hidden from view. In contrast, when representing a “value” as “social,” the nonhuman means by which it possesses durability become hidden from view.

support such things as “organisations or systems which we had always taken for granted – the Union of Soviet Socialist Republics, or Continental Illinois – are swallowed up” (Law, 1992, p. 1). Nor is stability secured by virtue of a more foundational reality behind inessential appearances: phenomena cannot be explained as mere manifestations of an underlying cause or reality, whether it is presumed to be “social,” such as religion, or “natural,” such as physical laws of nature. As Latour (1988, p. 163) argues, “nothing can be reduced to anything else, nothing can be deduced from anything else, everything may be allied to everything else.”

Critics have interpreted this principle of irreduction (Latour, 1988) to entail a flattening of differences in which everything is the same as everything else. For example, the world depicted by ANT, according to Shapin (1988, p. 547),

is the world of the seamless web, a world in which everything is connected to everything else, in which even the discrete existence of things and the categorization of processes cannot be used to interpret or to explain the actions of those who are said to produce them.

If everything is connected to everything else, if nothing can be reduced to anything else, and if nothing can be explained as an outcome of pre-existing causes, then everything is the same and there are no differences. As Laurier and Philo (1999) put it, ANT produces the “problem of installing a great *indifference* between the countless things of the world...which arises when they end up being portrayed as potentially *all the same*” (p. 1016).

However, ANT theorists “do not deny differences; [rather, they] refuse to consider them a priori and to hierarchize them once and for all” (Callon & Latour, 1992,

p. 356). That is, differences emerge through processes of network formation and thus cannot be assumed to pre-exist such ongoing activity. Moreover, they do not suggest that everything is connected to everything else: “not everything comes together, not everything is connected” (Latour, 1996a, p.152). As Harman (2009) explains, “a philosophy of networks does not require that the network be devoid of separate parts. If everything were already linked, translation would not be such a pressing issue for Latour” (p. 47). Indeed, notwithstanding various critiques of the use of the term (Haraway, 1994; Strathern, 1996), Latour (2005) suggests that the network metaphor has the advantage of reminding us that not everything in the world is connected, since “nets, networks and ‘worknets’ leave everything they don’t connect simply *unconnected*” (p. 242). Therefore, ANT provides neither a framework that would specify in advance the kinds of entities, structures, and forces that need to be considered in sociological research, nor a holistic theory in which everything is one. Instead, ANT researchers propose that specific realities are produced through specific networks that can be traced by the analyst, thereby providing a practical way of studying innovation.

ANT-inspired analyses of INRM can draw on the principle of irreduction – the idea that nothing can be reduced to anything else and that nothing has an essence – to investigate the specific and contingent details involved in the production of new institutions, management regimes, groups, relations, knowledges, economies, and so on. As such, these kinds of analyses can avoid both the application of lists of criteria to the evaluation of outcomes, and attempts to explain outcomes as resulting from given social and political forces, as reviewed above. Moreover, an ANT analysis allows the researcher to take into account the sheer diversity and complexity of human and

nonhuman elements that go into the construction process. For these reasons alone, ANT is well suited to the study of resource conflict and integrated management: according to Woods (1997),

given that rural conflicts are influenced by (and influence) local, national and global actors; that they are contested by coalitions of actors; and that they could conceivably be described as involving both human and non-human actors, many of the features of actor network theory [...] would appear to be relevant. (p. 322)

Moreover, the basis that ANT provides to study the complex and contingent ways in which innovative relationships “between” humans and nonhumans are produced, also supports an analysis of power and hierarchy, science and politics, and the relationship between nature and society – all of which, as explained above, are essential areas of investigation for INRM.

### **2.6.1 ANT, INRM and Power**

Integrated resource management is premised on the devolution of power and authority from central decision-makers (the Government and industry) to a large range of stakeholders. Yet, this is not a simple or straightforward process. As described above, devolution of power is not just about sharing power between government and community, as if these two things are monolithic; rather, communities are complex and internally fractured. Since power is distributed across fractured coalitions and networks,

rather than “held” by any particular group, ANT provides a useful analytic approach.

According to Woods (1997):

In positing a new conceptualisation of power the focus is shifted from the power attributed to any one actor to the construction of networks which allow an outcome to be achieved. These 'tactics of translation' provide a framework for understanding how coalitions are constructed and structured. (p. 323)

The concept of *translation* refers to the process of (re)defining the properties of entities – in particular, an entity’s identity and interests – as they become connected to other entities. The sociology of translation, according to Callon (1986), amounts to a “new approach to the study of power” (p. 196). According to Callon’s (1986) classic formulation, the process of translation has four overlapping “moments.” During *problematization*, the proponent of an idea or plan of action defines the problem to be solved, identifies the entities that are required to solve it, and defines the entities in such a way that the plan becomes an “obligatory point of passage,” necessary for them to pass through in order to meet their (re)defined needs. This moment thus involves the first stage in linking a number of entities in a network and defining them relationally. As Callon (1986) explains, “problematization describes a system of alliances, or associations, between entities, thereby defining the entity and what they ‘want’” (p. 8). The second moment involves attempts to “interest” these entities in the program of action so defined. Callon draws on the etymological meaning of the term “interest” as being in between (inter-esse) to come up with the neologism, *interessment*, to describe this second moment. Entities of course are already supplied with interests and identities defined by the networks in which they are implicated. This second moment thus involves building

“devices which can be placed between them and all the other entities who want to define their identities otherwise” (ibid., p. 9). These “devices” are infinitely varied, ranging from physical devices to verbal and written arguments.

Severing entities from “enemy forces” (ibid., p. 11) requires the consent and participation of the entities themselves, resulting in a series of negations defining the third moment, *enrolment*. Entities may demand any number of conditions, concessions, or other transformations of the plan in exchange for their agreement to participate, and enrolment can take a number of forms, including “physical violence [...], seduction, transaction, consent without discussion” (ibid., p. 12). Finally, enrolled entities are *mobilized* – the fourth moment of translation – by others who represent and speak on behalf of the assembled network. Entities that were at first dispersed, unconnected (but connected to other entities) and differently defined and interested, become progressively displaced and translated into a form that allows them to be easily represented, transported and combined (Latour, 1987, p. 227). In Callon’s study, for example, scallops that once rested on the sea floor have been 1) (re)defined as entities interested in accepting shelter that allows them to proliferate and survive, 2) severed from enemies such as currents, predators and greedy fishermen via the interestment device of a net and towline, 3) anchored (by themselves) on towlines on condition that they were at the right level and the right sort of substances for anchorage were used, and 4) mobilized in the form of diagrams and tables presented by biologists, their spokespersons, at a far away conference. According to Callon (1986), “chains of intermediaries which result in a sole and ultimate spokesman can be described as the progressive mobilization of actors who render [...] propositions credible and indisputable by forming alliances and acting as a

unit of force” (p. 14). In other words, the scientists who spoke on behalf of the scallops (and fishermen, consumers and scientific colleagues) were able to claim factual knowledge about scallops on the basis of the network assembled for that purpose. The fact that their claims rested on a network became apparent when the network began to fall apart: scallops refused to anchor, fishermen refused to withhold from fishing, colleagues became sceptical.

Several studies of resource management have adopted this approach to study how particular conservation visions become dominant and “how certain actants/networks are able to impose their views over those of others” (Hillier, 1998, p. 84; see Selman & Wragg, 1999; Burgess et al., 2000; Kitchen, 2000; Davies, 2002; MacCallum, 2008). For example, Kitchen’s (2000) study of environmental policy in the UK examines how “social actors struggle to ensure that their representations of the area prevail” by “striving to build networks and alliances designed to enrol others to their interests” (p. 135). Burgess et al.’s (2000) study of farmers’ identities relies on the understanding that “translation is thus about attempting to gain rights of representation, to speak for others and to impose particular definitions and roles on them” (Burgess et al., 2000, p. 123). Selman and Wragg’s (1999b) study of countryside planning in England draws on an understanding of ANT as

a theory of ‘translation’, explaining how an innovation ‘translates’ spatially and temporally from its origin to multiple destinations and is translated into the *lingua franca* of a cluster of spokespeople, so that a particular perspective gains dominance and displaces competitor theories and practices. (p. 653)

While this is a useful approach, the view of translation as a process of “heterogeneous engineering” (Law, 1987) has been heavily critiqued within science and technology studies for being too centred and even “Machiavellian.” ANT researchers in STS have tended to focus on “great men” such as Pasteur, examining how they convene, direct, and order networks in order to achieve their aims. Thus, while the “greatness” of these figures in ANT accounts is distributed somewhat among the various elements that are required for them to achieve their goals, they are nevertheless at the centre of the action, enrolling others as a means to their ends (Star, 1989; Fuller, 2000, p. 20). In these terms, ANT “sees only attempts to dominate, strategies for winning battles, means of attack, trials of strength, and other forms of violence” (Amsterdamska, 1990, p. 496). Indeed, Latour has been prone to use language associated with warfare – such as “battle,” “allies,” “trials of strength,” and the like (Fujimara, 1992). In these terms, ANT’s “actors work out their impulses to grow, to transform themselves from 'micro-actors' to 'macro-actors'. This they do vampire fashion: by subduing others, by insinuating themselves into others' bodies and by turning them into agents of their own volition” (Shapin, 1988, p. 534). The language of warfare has especially been picked up by feminist science studies scholars: as Haraway (1994, p. 59) questions, “must technoscience – with all its parts, actors and actants, human and not – be described relentlessly as an array of interlocking agonistic fields, where practice is modelled as military combat, sexual domination, security maintenance, and market strategy?” This kind of language centres the protagonist – generally male – and depicts him as in control of processes of network assemblage. But is the centre really a centre and is “he” really in control? As Knorr-Cetina (1985, p. 583) asks, “where, in Latour's account of Pasteur's success, is the



reference to the accidents, mistakes, breakdowns, circumstantial factors and disinterested attributions which presumably helped in the constitution of the phenomenon 'Pasteur', and which occurred perhaps against the will of contributing agents?"

Moreover, critics charge that ANT's focus on "great" heterogeneous engineers leads to a neglect of marginalized voices, while its participation in an elitist discourse that serves to maintain the status quo favours certain social interests and supports continued discrimination against disadvantaged groups. As Star (1991) argues, ANT accounts focus on network builders, but not on those who occupy a marginal position in relation to the networks of others. Because it is not as easy or as interesting to hear stories from the perspective of groups that are not able to assemble networks, ANT tends to follow the stories of heroes or failed heroes and thus describe networks from the perspective of the actors who represent them (Sismondo, 2009, p. 89). ANT thus participates in an elitist discourse. As a result, ANT "colonizes" the "other" and incorporates them into "the same" while producing accounts of dominant networks (Lee & Brown, 1994, p. 779; Hetherington, 2000).

Others charge that ANT supports the status quo by not critically engaging with or judging the social structures and forces that produce social inequality in the first place, relying on "an implicit but clear distinction between *describing* a state of affairs *and judging* them" (Berg, 1996, p. 256). Critics argue that ANT researchers do not study "economic, political, cultural, historical, and ideological factors" (Scott, 1991, p. 12) or embed their studies in a "larger historical or cultural context" (Martin, 1998, p. 27), and thus fail to recognize how science reflects large social forces (Schaffer, 1991, p. 189; Fuller, 2000, p. 27), particularly those associated with "vested interests, strategic

competition and traditional political forces” (Scott, 1991, p. 13). Several critics argue that ANT researchers neglect to account for the ways in which “the powerful” direct scientific research – theirs included – the result being unwitting complicity in relations of oppression (Etzkowitz, 1987, p. 696; Winner, 1993; Fuller, 2000). For example, Fuller (2000) suggests that ANT is “mode 2” research, or client-driven research that is shaped by collaboration with state and industry. More forcefully, Fuller suggests that ANT has been “captured” by the interests of “the powerful,” and is providing the latter with the means to oppress even in new situations where “top-down” authority is questioned, while simultaneously showing the indispensability of ANT research for policy-makers (Fuller, 2000, p. 12-17). Moreover, this flattened ontology entails that everyone has equal power, thus reinforcing capitalist ideology (Fuller, 2000, p. 11; Mirowski & Nik-Khah, 2004; Boltanski & Chiapello, 2005). Consequently, the researched remain pawns in a power struggle and ANT researchers fail to either judge the current order or to recommend a radical new order (Fuller goes so far as to accuse ANT researchers of “totalitarianism”).

The twin charges of Machiavellianism and total neglect of power structures ought to cancel each other out. On the one hand, critics claim that ANT treats the production of knowledge and technology as a purely political contest, thus taking away any ability of the oppressed to “speak truth to power” (Sokal & Bricmont, 1999). On the other hand, ANT is accused of being indifferent to inequalities and power struggles, and thus “content only to connive with those in power” (Latour, 2005, p. 251). Both of these critiques rest on two assumptions: (1) that power resides in the social whereas knowledge and truth reside in nature, and (2) that power is something that some groups “have” and others fail to “have” on the basis of their position within social structures. On this basis,

both criticisms make sense: ANT extends politics to where it should not be – nature (unless it is to debunk ideology) – and withdraws it from where it ought to be contested – society (unless it is to use truth against power). But, ANT does not make these kinds of distinctions; nor does it consider some characteristics, such as power, to be essential features of some ontological categories, such as society. Instead, for ANT theorists, power is produced and reproduced through networks of humans and nonhumans. As Latour (2005) puts it:

power, like society, is the final result of a process and not a reservoir, a stock, or a capital that will automatically provide an explanation. Power and domination have to be produced, made up, composed. Asymmetries exist, yes, but where do they come from and what are they made out of? (p. 64)

Conventional sociologists assume that asymmetries are produced by the structures of “society.” This, according to Latour (Strum & Latour, 1987), is an “ostensive” definition of society: it assumes that actions are contained “within,” and explainable with reference to, a social realm defined by particular principles, rules and structures. In contrast, ANT explanations rely on a “performative” definition of society. Actors create their social worlds (and their principles and structures), by linking heterogeneous materials – economic, biological, psychological and so on – together. Society is not what glues people together, but is what is glued together. Moreover, the process of “gluing” must be kept up: as soon as it stops, the reality which it performs ceases to be. Conventional sociology, argues Latour (2005, p. 100), simply replaces the *explanandum* with the *explanans*: “society” whether taking the form of actors, norms, structures, or interests, cannot explain but instead needs to be explained. As Latour (1987) writes,

Analysts who use groups endowed with interests in order to explain how an idea spreads, a theory is accepted, or a machine rejected, are not aware [sic] that the very groups, the very interests that they use as causes in their explanations are the consequence of an artificial extraction and purification of a handful of links from these ideas, theories or machines (p. 141).

When adopting an ANT approach for the study of INRM, the analyst must neither apply a Machiavellian model – in which some actors assemble, enrol and colonize others in order to ensure that their interests prevail and dominate – nor a social structures model – in which pre-existing social forces determine individual outcomes. As Davies (2002) reminds us, the value of ANT is that “it enables analysis of partnerships to move beyond the simple dichotomy of structures and agents to include people, institutions and the non-human realm and to explicitly examine resources, arguments and flows of knowledge between them” (p. 190). The analysis must focus on the assemblage of multiple entities such as these while avoiding assumptions that any one entity is ultimately in control of such assemblage, or that it will serve to realize any one set of interests. Rather, the focus must be on how identities, interests, and visions emerge and become *transformed* as networks are built. ANT should help us understand how “the nature of a program followed changes as new actors are enrolled and as the program responds to the 'anti-programs' of opponents. This can contribute to understanding how the nature of a political campaign or issue can change in relation to shifting contexts” (Woods, 1997, p. 324; see also Lockie, 2007).

Additionally, this approach can help us understand how social change is possible. If giant forces are assumed to exist and condition all outcomes, then there is little room for analysing how groups who have little influence with those occupying powerful

positions are able to generate influence. Thus, instead of analyzing cases as examples of well-known types (Latour, 2005, p. 22), ANT learns from the actors they study how power is produced in particular instances. This is perhaps the best way to make a difference, since “if there is no way to inspect and decompose the contents of social forces, if they remain unexplained or overpowering, then there is not much that can be done” (Latour, 2005, p. 252). By contrast, according to Latour (2005):

action is possible only in a territory that has been opened up, flattened down, and cut down to size in a place where formats, structures, globalization, and totalities circulate inside tiny conduits, and where for each of their applications they need to rely on masses of hidden potentialities. If this is not possible, then there is no politics. (p. 252)

## **2.6.2 ANT, INRM and the Relationship Between Science and Politics**

INRM represents a move away from top-down, expert-led resource management and toward the inclusion of multiple voices, perspectives, and knowledge (Selin & Chavaz, 1995, p. 189; Ludwig, 2001; on the rise of civic science for sustainability, see Lee, 1993; Bäckstrand, 2004; Cortner, 2000; Plummer, 2006). As such, it contains an implicit critique of the relationship between science and politics. The traditional model of science and politics assigns different roles to experts and policy-makers. Experts are tasked with discovering the incontrovertible facts. By contrast, policy-makers work to balance multiple and conflicting interests and positions while they make decisions. This model presupposes two distinct spheres of reality: the world of mute, nonhuman reality, and the world of cacophonous, human politics. The goal of conservation advocates is to

use science to bring the true, incontrovertible facts to the political sphere in order to quell debate and provide the foundation for decision-making. This model of science and politics is thus an apolitical ecology, one in which scientists break away from the human world of politics to access the truth of nonhuman nature, only to break away from the world of nonhuman nature to return to the world of politics with their truths and tell people what they should do. This “double rupture,” as Latour (2004, p. 11) refers to it, allows experts to enter politics without appearing to be political: “they can make the mute world speak, tell the truth without being challenged, put an end to the interminable arguments through an incontestable form of authority that would stem from the things themselves” (Latour, 2004, p. 14).

However, the fortress conservation approach that would maintain a clear distinction between nonhuman reality and human politics has been replaced with the recognition that conservation science and politics are inseparable. As Selman and Wragg (1999b, p. 667) note, “it is likely that the generally democratic spirit of participatory fora is conducive to classically trained scientists becoming more amenable to the legitimacy of lay knowledge.” In Latour’s terms (2004, pp. 22-24), “matters of fact” have been replaced with “matters of concern.” That is, the idea that experts can determine the essential requirements of ecosystems, that those requirements are well-defined, and that they entail exclusion of human use, has been replaced with recognition of uncertainty, instability, and disturbance, the involvement of multiple groups in defining and valuing ecosystems, and the inclusion of humanity as a component of ecosystems. Science remains fundamental to resource management, but its position vis-à-vis politics takes on a new aspect. As argued by Lockie (2004):

Even though the “natural sciences” have established themselves as “obligatory points of passage” (Callon, 1986), or “centres of calculation,” in the networks of natural resource management, environmental disputes are seldom straightforward conflicts between technocentric science and romantic environmentalism. Rather, they are conflicts over whose science, and the ends to which it is to be applied, are to prevail (Beck, 1992). The expression of agency in such situations is highly dependent on the ability to open the black box of ‘science’ and to enrol its actants in one’s own networks. Environmental controversies are often, as much as anything else, conflicts over who may speak on behalf of non-humans (p. 51).

ANT is particularly adept at opening the “black box” of science to study its matters of concern, because it was invented for just that purpose. Instead of assuming two separate spheres – nonhuman reality and human politics – ANT investigates how the world is made up of a variety of heterogeneous elements. Politicians and their constituents, economists and their markets, scientists and their ecosystem integrity, NGOs and their moral concern, communities and their economic needs, species and their habitats – all of these elements go into the construction of a conservation project. The assemblage of such networks is simultaneously a scientific and political process. This is not to say that politics envelopes science, projecting and defining nonhumans purely on the basis of political gain. Rather, as Shapin (1990: 538) notes, “Latour's erosion of the conventional boundaries separating politics from science is predicated upon the insistence that objects and non-human entities as well as people are political beings. Things belong to the study of political order as much as human agents.”

Nevertheless, ANT’s erosion of the boundary between science and politics has been heavily criticised. In particular, this view has been critiqued for being overly relativistic, or for suggesting that there is no reality beyond what is “socially constructed” (e.g., Amsterdamska, 1990; Gross & Levitt, 1994, p. 58). In this critique, ANT is

characterized as entailing that reality is solely a product of human practices of representation, and that there is no observer-independent reality to which representation corresponds. For example, Amsterdamska (1990) argues that Latour's position entails that:

we are unable to make any distinctions between things and their representations: Things are what we collectively represent them to be, nothing more and nothing less. Accordingly, a true statement is a statement we express as true, nature is what we collectively represent as nature, a fact is what we collectively express as a factual proposition. (p. 497)

In Amsterdamska's view, ANT confines the analyst to the sphere of human representation, whereas one ought to be able to specify a link between representation and that which is represented. Similar critiques have been levelled against social constructionist perspectives in environmental sociology (Benton 1994; Dunlap & Catton 1994; Martell 1994; Murphy 1994; Dickens 1996). These debates have been particularly heated, since realists believe that constructionist arguments ultimately entail that there are no real environmental issues and threats. However, while social constructionist environmental sociologists respond to these charges by emphasizing that they believe in an external biophysical reality but prefer for methodological reasons to restrict analysis to epistemological issues while withholding ontological statements (Burningham & Cooper, 1999), ANT takes a very different approach. Indeed, Amsterdamska's critique misrepresents ANT. The misrepresentation becomes apparent when one takes into account another, symmetrical critique of ANT, one that is in line with a social constructionist approach and accuses ANT of not being relativistic enough.



For example, Bloor (1999) suggests that Latour's position is a step backward from his own approach to science and technology, known as the "Strong Program" in the sociology of knowledge. Bloor argues that where Latour naively takes account of nonhumans in the production of knowledge, the Strong Program rightly restricts analysis to the assumption that "systems of belief, that is, shared and institutionalized forms of knowledge, are the medium through which people co-ordinate their shared interactions with non-social nature" (Bloor, 1999, p. 88). According to Bloor (1999) "the important point is to separate the world from the actor's description of the world. It is the description that is the topic of inquiry" (p. 93). Moreover, this entails a clear restriction to the sphere of representation and meaning: "only by sustaining the distinction between the subject and object, and by driving a wedge between nature itself and the descriptions of it provided by the knowing subject can we highlight the problematic character of those descriptions" (ibid., p. 94). Similarly, Collins and Yearly (1992) argue that Latour is forced to uncritically defer to claims made by scientists about nonhuman nature, since he has no particular scientific expertise himself. Consequently, he neglects an appropriately sociological analysis of scientific knowledge which involves methodological relativism, or "the ability to switch between different frames of reference" (Collins & Yearly, 1992, p. 301). Thus, Latour (and colleagues whom he represents) is alternately accused of giving too much to representations and not enough to nonhuman nature and too much to nonhuman nature and not enough to human representations.

The accusation rests on the assumption that there is a big gap between reality and representation – but this is another one of the dualisms that ANT has attempted to dissolve. According to this assumption, the epistemological question concerns how to

ascertain the extent to which representations “correspond” to reality, otherwise known as the “correspondence theory of truth” (Latour, 1999a, p. 24). Yet, this assumes two distinct ontological domains – language and nature – that are separated by a giant gap. By contrast, Latour attempts to describe how scientists cross multiple small gaps as they “pack the world into words” through what he calls “circulating reference” (ibid, p. 24). In tracing how scientific knowledge is produced he shows that there is a chain that involves translating material reality into new forms through the application of instruments and categories (or “inscription devices”), which are further transformed by other instruments and categories. Thus, in Latour’s formulation, representation and reality are not related as two domains joined by a bridge of “correspondence,” but are conjoined in a single process that loads things into words – things are real *because* they are constructed (Latour, 2005, p. 89). This view goes well beyond either social constructivism or realism by demonstrating how both humans and nonhumans produce realities.

An ANT approach to the study of INRM thus must neither treat science as a black box and matters of fact as given, nor retreat to a purely social constructionist account of nonhuman reality. It must focus on circulating reference, the manner in which nonhumans are “loaded into discourse.” It must study the innovation of resource management as an ongoing process of network building that is simultaneously scientific and political. Nature and society are not two separate spheres: there is only one process to follow – the process of association. Science and knowledge are the products of a “circulatory system” (Latour, 1999a, p. 80) that links multiple human and nonhuman groups. Similarly, society is conceived of as a “circulating entity” (Latour, p. 17).

### **2.6.3 ANT, INRM and the Relationship Between Humans and Nonhumans**

INRM asks us to see that nature and society are not separate from one another, but are intertwined. The challenge is to see people and nonhumans as co-inhabitants in ecosystems. As noted above, the understanding of how nature and society are related in the conservation field has varied over time (Salafsky & Wollenberg, 2000). In traditional approaches to conservation, nature and society are seen as oppositional. Some of the early integrated conservation and development projects specified indirect linkages, such as the buffer zones around biosphere reserves that were meant to provide alternative livelihood options for local populations. More recent approaches specify direct linkages, in which conservation and development are dependent upon one another. Despite this trend, approaches to the study of INRM have not evolved to the point of taking into account direct linkages. Of the approaches reviewed above, all but one restrict analysis to social processes, leaving the analysis of nonhumans to natural scientists. Only resilience perspectives promise to take into account humans and nonhumans in the same framework. However, as mentioned above, this perspective tends to be too theory-driven and thus unable to account for the nuances and surprises involved in the construction of new worlds.

Environmental sociology should be well placed to contribute a theory of how nature and society are linked, since this question forms the core of the sub-discipline. However, environmental sociology has generally maintained a boundary between the two

assumed spheres, even when developing frameworks to understand how they are related (Murdoch, 2001, p. 115). In the original formulation of environmental sociology as the “study of societal-environmental interactions” (Catton & Dunlop, 1989), society and nature are seen as simultaneously related and separate. Human societies are seen to be embedded in and dependent upon natural systems, but nevertheless defined by unique features and dynamics that are not shared with nature.<sup>9</sup> The various theoretical frameworks in environmental sociology that have arisen since – such as the treadmill of production (Schnaiberg, 1980), ecological modernization theory (Spaargaren & Mol, 1992), ecological Marxism (Benton, 1993), risk society (Beck, 1992), and social constructionism (Hannigan, 1995) – have either maintained this view or modified it by saying that our understanding of nature and society is inextricably determined by social processes, while assuming that there is a real, nonhuman reality outside of such constructions.

In this context, ANT stands to make a significant contribution both to the study of IRNM and environmental sociology. Murdoch (2001) argues that ANT is well-placed to respond to the “ecological challenge to sociology,” that is, to core ecological tenets such as the notion that humans and nonhumans are connected and interdependent, the rejection of nature and society as distinct ontological categories, the rejection of dualistic thinking, and a focus on a unified vision (p. 112). ANT, according to Murdoch (2001),

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<sup>9</sup> Dunlap and Catton emphasized early on that they did not deny that humans were unique with respect to other species. To avoid misunderstanding, they changed the name they applied to mainstream sociology’s (and mainstream society’s) view of nature from the “Human Exceptionalist Paradigm” to the “Human Exemptionalist Paradigm.”

is ecological in the sense that it seeks to overcome any underlying distinctions between natural and social entities, thereby extending agency to non-humans as well as humans. In this fashion the theory shifts our attention away from humans and the social to collectives and complex ecologies. (p. 120)

Indeed, ANT fundamentally reconfigures our understanding of the “social.” According to ANT theorists, in order to understand society, we need to understand the nonhumans with which we are bound. On one hand, nonhumans have a social history just as much as humans do, traceable in laboratory studies (Latour, 1988, p. 262). On the other hand, human intentions would not be achievable without the many nonhumans that render them “durable” (Latour, 1991). Humans delegate activities to nonhumans: cumbersome hotel room keys replace the need for verbal or written directions to do with leaving your key at the desk (Latour, 1991, p. 104), speed bumps replace the need for police men to direct people to slow their cars (Callon and Latour, 1992), seat belts ensure the morality of safety and precaution, and automatic door openers replace the need for human door openers (Latour, 1992). The translation of human goals and intentions into objects, texts, devices and so on, enables people to act at a distance, that is, to structure outcomes far removed from face-to-face interactions (Latour, 1987, p. 219). At the same time, nonhumans pass along some of their traits to humans. For example, the harnessing of electric power by Edison helped him build corporate power (Hughes, 1983; Latour, 1999, p. 204), the domestication of microbes by Pasteur transformed him into a great scientist (Latour, 1988): in short, machines are used as models of social organization (Latour, 1999, p. 206). Other writers have similarly noted the ways in which humans are transformed by nonhumans, speaking of, for example, the domestication of people by microbes or animals (Haraway, 2008).

In this view, nature and society are not considered to be pre-existing spheres that are brought into some kind of relationship. According to ANT, for any outcome to be produced – whether it is a piece of knowledge, a form of technology, an identity, or an institution – a network must be assembled. Once the network is in place, the outcome that it performs can be “purified” of its messy, heterogeneous elements and placed in discrete categories, such as nature and society. As Murdoch (1997) puts it, “it is only when the networks have been established, and roles and identities distributed within them, that a clear-cut difference emerges between ‘things out there’ and ‘humans in here’” (p. 744). ANT provides tools to study both the ways in which heterogeneous entities become associated with one another and translated into one another’s terms *and* the processes in which these complex networks are purified of their attachments. It is only through such processes that the categories of nature and society are (re)produced. Latour (1993) refers to the dual process of translation and purification as the “modern constitution” (p. 10). This is a key concept that I will come back to repeatedly in my analysis of the case.

This approach has far reaching consequences that challenge the humanist position underlying much of sociology. According to ANT scholars, the attribution of special properties to human beings – such as intentionality and agency – purifies the underlying heterogeneous networks that give rise to these attributes. Since there is no specific realm that might be called “society,” it is inaccurate, according to ANT theorists, to attribute specific properties to it. Properties such as agency, intentionality, and interests, generally thought to be exclusively human, are shared and distributed across human-nonhuman networks. Nonhumans participate in the course of actions, for example, by facilitating

“action at a distance.” This is not to say that they merely reflect, embody, or transport human intentions and desires, but they help constitute intentions and desires and thereby translate and transform them. For example, in a study of the ecological restoration of a river, Eden et al. (2000) describe how the project proponents needed to rely on the contributions of clay to help cut a sinuous, meandering bend. However, the clay did not perform as required, resulting in an alteration to the plan and thus the ultimate goals and intentions “behind” it. ANT theorists prefer to speak of agents as “actants” because they do not restrict agency to humans. However, they do not mean to imply that nonhumans “have” agency just as humans do; rather the idea of agency is reconfigured as an effect of networks of heterogeneous relations. Agency, whether attributed to humans or nonhumans, is not given, but emerges. As Pickering (1993) notes in relation to nonhuman agency in scientific accounts, “the contours of material agency are never decisively known in advance, scientists continually have to explore them in their work, problems always arise and have to be solved in the development of, say, new machines” (p. 564). As Latour (1999c) explains, “actantiality” is what “*provides* actants with their actions, with their subjectivity, with their intentionality, with their morality” (p. 18). Nonhumans provide and are provided with agency just as much as humans.

Some have taken ANT’s claim that the social is comprised of nonhumans and that agency is not a solely human capacity to entail that people are mere objects. For example, Fuller (2000) claims that “in its proliferation of agency, actor-network theory dehumanizes humans” resulting in the “treatment of humans as cogs in the wheels of a machine” (p. 21). Similarly, Bloor (1999) likens Latour’s argument that no a priori distinctions ought to be made between humans and nonhumans to the view that “minds

are brains and that brains are computers” and that “humans such as Pasteur and Millikan are just like microbes, in being collections of electrons and other basic particles” (p. 96). For this reason, according to Amsterdamska (1990), there is not much to be gained from breaking down distinctions between humans and nonhumans: humans and nonhumans are “hardly comparable, and the elimination of differences among them leads only to confusion” (p. 501). However, this position arises from a misunderstanding of ANT. ANT does not intend to *reduce* humans to the status of nonhumans, if the latter are understood as a given ontological reality. Materialistic monism is only possible with a prior definition of materialism. For one, irreduction, as mentioned above, is a basic ANT tenet. Moreover, ANT’s understanding of nonhumans is very different from what was crafted in opposition to society. As Latour (1999b) writes, “nothing could be further from our definition of actants. They are not in nature, nor in society (nor in language)” (p. 125). Rather, actants are networks of heterogeneous elements.

Nevertheless, ANT has been critiqued for taking an anti-humanist position. The primary claim is that ANT’s dissolution of the boundary between humans and nonhumans fails to adequately take into account what is distinctive about people – particularly, their intentionality and capacity to have interests. According to Pickering (1993), this is the real “sticking point.” As he writes, “we humans differ from nonhumans precisely in that our actions have intentions behind them, whereas the performances (behaviours) of quarks, microbes, and machine tools do not” (ibid., p. 565). Moreover, intentions are generally thought to be based on underlying interests, such as people’s interests “in encouraging or enlisting in courses of action which promise to give scope and value to their skills and routine” (Shapin, 1991, p. 546). Finally, interests are



thought to be shaped by one's position in wider social structures. Hence, according to this position, the proper role of the sociologist is to approach their topic of study as "social realists" who take the social world as the "foundation of reality" (Collins & Yearley, 1992, p. 308). But, again, ANT writers do not deny the idea that people are associated with intentionality and interests, only the assumption that intentionality or interests are unique, essential traits or capacities. Intentions and interests have to be produced, as does everything else. Latour (2005), for example uses the metaphor of "plug-ins" to suggest that putatively unique and essential characteristics of humans exist only when they are constructed out of materials that come from without, such as information labels on consumer products to which people can subscribe to become rational consumers. With this understanding, according to Latour (2005):

You don't have to imagine a "wholesale" human having intentionality, making rational calculations, feeling responsible for his sins, or agonizing over his mortal soul. Rather, you realize that to obtain "complete" human actors, you have to compose them out of many successive layers, each of which is empirically distinct from the next (p. 207).

Thus, ANT scholars do not deny the existence of important traits such as intentions, desires, responsibility, and agency, but they attempt to show the heterogeneous ways in which these characteristics are produced, rather than assuming them *a priori* as fundamental features of human beings. Accordingly, "rather than utilizing Nature and Society as explanatory resources ANT authors believe these two great domains have to be examined as *outcomes*" (Murdoch, 1997: 743). Indeed, Latour and others argue that as a result of science and technology, relationships between humans and animals, and the ecological crisis, attempts to purify heterogeneous networks into

“nature” and “society” are becoming more difficult, and less politically desirable (Murdoch, 1997, pp. 731-732; Braun & Castree, 1998; Whatmore, 2002, p. 1; Latour, 2007, p. 3; Haraway, 2008; White & Wilbert, 2009). As Latour (2004, pp. 20-22) argues, environmental problems have progressively rendered explicit all of the links and attachments between people and nonhumans that were previously taken for granted. As a result, “the ecological crisis has forced us to abandon the nature and society collectors” (Latour, 2007, p. 5). The question is, what can replace the nature/society framework? According to Latour, this cannot be determined in advance; rather it is an open question that must be examined empirically. At a minimum, the new conception can be referred to as a “collective,” or a “procedure for collecting associations of humans and nonhumans” (Latour, 2004, p. 238). The role of the analyst is to examine the formation of networks and the ways in which a variety of elements come together to form a coherent, common world.

This perspective is particularly applicable to the study of INRM. INRM projects consist of multiple groups and the attempt to integrate humans and nonhumans in a coherent order. Rather than assuming that the network so assembled can be split into experts and lay people, scientists and politicians, and that the network is a “society” that engages with an external “nature,” ANT researchers should study how multiple groups in the network – scientists and their ecosystems, environmental non-governmental organizations (ENGOS) and their charismatic megafauna, politicians and their constituents, species and their conservation biologists, forestry companies and their customers, First Nations and their rights and title – connect with one another, how their interests and identities are mutually defined, how they go about determining which

elements to bring into their world and how those elements may be understood, and how they form those elements into one good common world (Latour, 2004). The analysis should not assume that certain properties – such as agency and intentionality – belong to certain beings and not others, but examine how these features, and others, emerge through the process of network formation. Indeed, a key focus will be on whether the actors themselves seek to purify their network into “nature” and “society” or – of central importance for IRNM – whether they develop an alternative identity for the collective that avoids the society/nature dualism.

## **2.7 Summary**

The Great Bear Rainforest agreement highlights issues of collaboration among ENGOs, forestry companies, and First Nations, the application of new “ecosystem-based” forms of forestry management, and the reconciliation of conservation and economy in the coastal forests. As I detailed in this chapter, the GBR thus represents a case of integrated natural resource management. INRM seeks to avoid the problems that came with the fortress conservation approach to wilderness conservation, such as injustices meted out to local populations and species loss through ecological fragmentation. To address these problems, a number of overlapping initiatives have been introduced, including community-based natural resource management, ecosystem-based management, and integrated conservation and development projects. On the basis of these initiatives, INRM works to include multiple stakeholders in resource management,

to manage resources on the basis of unstable ecosystems that include people as a key component, and to directly link conservation and development. However, research has highlighted particular problems with INRM. In particular, INRM projects take place within and can exacerbate existing relations of power, must attend to challenges to scientific authority, and often involve an uncertain understanding of the conceptual link “between” society and nature.

In this chapter, I discussed how a number of different research traditions have addressed these issues, including common property theory, social learning, political ecology, social constructionism, and resilience theories. While these perspectives have taught us much about INRM, they are not always well adapted for taking account of the complex and contingent nature of INRM projects. Moreover, with the exception of resilience theories, existing research tends to restrict its focus to social processes without taking into account the role of both humans and nonhumans in resource management projects. To address this need for a research approach that can investigate INRM on its own terms as a contingent process that associates humans and nonhumans into innovative formations, I introduced a novel set of conceptual tools and resources, collectively referred to as actor-network theory. Although it has only been drawn on by a handful of researchers of INRM-type projects, ANT promises to make a strong contribution to the study of INRM. ANT researchers refuse to make *a priori* assumptions about the worlds that they study, thus allowing them to take into account the complex and contingent processes through which actors to create new worlds. Studying these worlds as the outcomes of processes that assemble heterogeneous networks, ANT researchers provide unique insights into issues of power, science and politics, and the relationship “between”

nature and society. This is not to say that ANT has not gone unchallenged, however. Researchers within and outside of STS have challenged the approach for simultaneously being too relativistic and not relativistic enough, anti-humanist and anti-science, apolitical and extending politics everywhere, ignorant of the marginalized and willing to give voice to the “missing masses” of nonhumans. The symmetry of these criticisms indicate that, often, critics mischaracterize the position of ANT. Nevertheless, since ANT does challenge important elements of sociological thought, such as agency, intentionality, power, knowledge, and the relationship between society and nature, it is important to put it to the test to see if it stands up to its promises.

## ***2.8 Outline of the Analysis***

While ANT has been tested in numerous fields, it has hardly had a hearing in environmental sociology despite the fact that it promises to make a key contribution to the sub-discipline’s preoccupation with the relationship “between” society and nature. In this dissertation, I test concepts and perspectives associated with ANT as I examine the GBR agreement as a case of INRM. In the following analysis, I examine the GBR as the outcome of a process of network building among a variety of actors. I look at how a variety of elements – human and nonhuman – were drawn into the project, how their identities and interests were produced in the encounter, and how the overall focus of the project shifted and changed as elements were enrolled in support of it. I roughly adopt the schema of translation developed by Callon (1986) and its overlapping four

“moments.” In Chapter 4, I examine the processes of network-construction engaged in by environmentalists as they sought to “problematize” the region and “interest” other groups in saving it. In Chapter 5, I examine environmentalists’ practices of “interessement,” or how they sought to interpose themselves between their potential allies and other groups that would define their interests differently. I look at how some environmentalists attempted to enrol the wider BC wilderness movement into their project by directing the movement’s focus away from individual, fragmented campaigns and toward a large, comprehensive campaign. I look at how the concepts and practices of conservation biology positioned bears as the representatives of the coastal temperate rainforest. I examine in detail the strategies of environmentalists to position themselves between forestry companies and their retail customers. Finally, I note how, in their campaigns, First Nations resisted the attempts of environmentalists to draw them into their campaigns and to speak on their behalf. In Chapter 6, I examine the negotiations that took part in the “enrolment” of the various actors. In particular, I look at the exchange of properties between environmentalists and forestry companies as they formed a new group between them, the Joint Solutions Project (JSP). Not only did forestry companies take on a new identity as they joined the network, but so too did environmentalists. Noting the resistance of multiple groups during this stage – among the “public,” environmentalists, forestry companies, workers, and First Nations – I look specifically at the efforts of First Nations to alter the network for their purposes. Finally, the last chapter before the conclusion (Chapter 7) looks at how the various actors in the network were “mobilized” into a connected and reconciled network of interests via ecosystem-based management and the conservation economy. In particular, I look at

how these mechanisms collect multiple human and nonhuman interests, commensurate them, and put them in a format that can be represented in an agreement.

The purpose of this analysis is to bring to light issues of power, science and politics, and society and nature that arise in the course of the emergence of an innovative approach to natural resource management. I examine how the process of network construction shifted relations of power among the actors involved. In particular, the focus is on the network interventions engaged in by environmentalists to alter the network of power that was given by the prevailing approach to collaborative resource management. I analyse how ENGOs generated power through the enrolment of nonhumans in their campaigns and intervention in the commodity chain linking coastal forests to international markets. I also consider how First Nations generated power through their counter-enrolment of the network. Additionally, I consider some actors that felt that they were not represented and were left out of the agreement. Second, I examine the process of network formation as a simultaneously scientific and political process. In this analysis, I try to detail the chain linking words and world, rather than posit mechanisms to leap over the giant gap between representation and reality. In other words, I do not counterpoise “social constructions” to “biophysical reality.” I look at how both experts and lay researchers (or “citizen scientists”) simultaneously drew on material and discursive elements as they worked to enrol humans and nonhumans into the emerging network. This analysis is applied to the problematization of the region as a “coastal temperate rainforest,” to the designation of the “Great Bear” as its representative, and to mechanisms of reconciliation between ecosystem integrity and human well-being. Finally, I analyse how actors in the GBR case worked to resolve the relationship among

the elements they assembled together in a network. In particular, I examine attempts to purify the network into “nature” and “society.” However, my primary focus is on examining the extent to which actors eventually replaced practices of purification with attempts to construct a “collective.” That is, while early chapters show how the actors both assembled heterogeneous networks and attempted to purify them, the last chapter focuses on the mechanisms invented by the actors to reconcile the interests of multiple humans and nonhumans into a new configuration that cannot be understood as either nature or society.

In the Conclusion, I consider the contributions of this analysis for research on INRM. I suggest that ANT provides a means of studying INRM as an innovation in ways that other perspectives are unable to offer. In particular, I highlight that ANT provides unique insight into the issues of power, science and politics, and the relationship “between” nature and society. Moreover, I offer this study as a contribution to the field of environmental sociology, which has recognized the existence and potential of an ANT approach but which has few empirical examples (and none in the field of INRM). I emphasize that ANT provides a new way of conceptualizing not only nature, but also society, replacing both terms with empirical explorations of the “collective.” I emphasize that this study highlights the role of nonhumans in network formation but does not specifically analyse nonhuman agency in the form of resistance to enrolment. Nevertheless, I suggest that there is no reason why this could not be done in principle.



## **3 A Method and not a Theory**

### **3.1 Methodological Strategies**

According to Latour (1999), ANT is “a method and not a theory” (p. 20). That is, ANT researchers do not try to explain the world that they study with reference to pre-determined conceptual models and frameworks. This approach would be problematic for ANT scholars, since it would rely on an understanding of what the world is made of – particular social structures, forces, and so on – rather than on learning from the actors themselves how they go about constructing their worlds. Many of the categories that conventional sociologists take for granted, including the groups to be studied, who and what has agency, the status of objects, and the taken-for-granted reality of natural “facts,” are all empirical questions for ANT scholars (Latour, 2005b). Since “sociologists of associations” cannot start with assumptions such as these but must start with a “clean slate” (Law, 1992, p. 2), they have no recourse but to “follow the actors themselves” (Latour, 2005, p. 68). Actors know very well what they are doing and leave evidence of their activities that is traceable by sociologists. The key is to not explain away the actors’ activities with recourse to social structures and forces, but to maintain a light theoretical repertoire or “infralanguage” (Latour, 2005, p. 30) that is capable of deploying controversies around things such as groups, interests, agency, objects, and facts, thereby discovering the traces by which such things are linked and constructed. As Latour (1999) puts it:

Actors know what they do and we have to learn from them not only what they do, but how and why they do it. It is *us* the social scientists, who lack knowledge of what they do, and not *they* who are missing the explanation of why they are unwittingly manipulated by forces exterior to themselves and known to the social scientist's powerful gaze and methods. (p. 19, emphasis in original)

For this reason, ANT researchers “follow the actors themselves” to trace their world-building activities. A *network* in this sense is not a theory of what the world looks like, but a method to be deployed in order to trace how worlds are constructed: “a tool to help describe something, not what is being described” (Latour, 2005, p. 131).

A theory consists, at its most basic level, “of two concepts joined by a proposed relationship” (Maxwell, 2005, p. 42). ANT's network methodology enables the researcher to study how the actors themselves establish relationships and, thus, how they explain their worlds in the process of building them. Ontology and epistemology are folded together and the distinction between description and explanation becomes meaningless: a full description provides an explanation (Latour, 2005, p. 137). This close focus on actors' world-building activities lends itself to the detailed, qualitative studies of particular cases. According to Creswell (1998, p. 17-18), qualitative research describes *how* a state of affairs came into being (rather than trying to explain why); *explores* a topic in which variables and explanatory theories are not easily identified or available; presents a *detailed view* of the topic; studies individuals in their *natural setting* through interviews, participant observation and other data collection; *writes* the report in a narrative, literary style; spends a long *time* collecting and analyzing extensive data; and tells the story from the *participants' view* rather than from an expert's judgments.

My study of the GBR involves a qualitative, in-depth study of a process. It therefore conforms to a case study approach. According to Creswell (1998), “a case study is an exploration of a ‘bounded system’ or a case (or multiple cases) over time through detailed, in-depth data collection involving multiple sources of information rich in context” (p. 61). The purpose of a case study is to focus intently on a particular process or event to explore a problem (Lincoln et al., 1985). In this dissertation, I investigate the GBR to explore issues of power and hierarchy, science and politics, and nature and society in integrated natural resource management from a network perspective. Creswell (1998) suggests that cases can be identified by being “bounded” in space and time (p. 37). However, from an ANT perspective, neither place nor time can be assumed *a priori* since they are the outcomes of networks of associations. As with other elements under consideration, the methodological approach is to “follow the actors themselves.” Accordingly, I treat the “place” of the GBR as a controversy that I deploy in Chapter 4 where I examine the heterogeneous processes involved in environmentalists’ determination of the area as the “Great Bear Rainforest.” I demonstrate the convergence of efforts to define the area in maps, which have come to form the spatial bounds of the case. With respect to time, I take the first attempts to redefine the central coasts in the early 1990s and the 2006 agreement as the rough temporal bounds of the case.

Case studies involve in-depth explorations, and thus use extensive and multiple sources of data, including observations, interviews, audio-visual material, and documents and reports (Creswell, 1998, p. 61). My data collection proceeded in two steps. First, I collected textual and audiovisual data about the GBR from websites and online databases. Websites included environmental organizations (individual organizations and the

Rainforest Solutions Project coalition), forest company groups (Coast Forest Conservation Initiative), First Nations (Coastal First Nations – Turning Point), Provincial Government (Integrated Land Management Bureau), and mainstream and grassroots online media sources such as the CBC and *The Dominion* and *Raven's Eye*. Databases included Canadian Newsstand and a public provincial government file-sharing (ftp) site. From these sources, I collected agreements (LRMPs, government-First Nations, ENGOs-industry, etc.), terms of reference, work plans, legal orders, presentations, reports (technical, organizational, workshops), scientific articles, ecological data, newsletters, press releases, news stories, public and customer information materials, campaign materials, histories and timelines, minutes and agendas of meetings. With respect to audio-visual material, I collected maps, videos, films, and radio interviews.

Second, I conducted semi-structured face-to-face interviews with key individuals purposefully selected from involved environmental organizations, forest companies, First Nations organizations, the Provincial Government, the local government, and consultants.<sup>10</sup> To do this, I created a sample frame of nearly 300 individuals from a variety of sources, including: participants in the Central and North Coast Land and Resource Management Plans (LRMPs), members of the scientific body set up to provide information on ecosystem-based management (Coast Information Team), participants in institutions designed to implement the agreement (Ecosystem-Based Management Working Group [EBMWG], Land and Resource Forums [LRF], Plan Implementation and Monitoring Committees [PIMC]), and key names identified in news stories, press releases and campaign materials. This sample frame was stratified by group, including

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<sup>10</sup> See Appendix for copies of letters of introduction, consent forms, and interview guides.

environmentalists, forestry industry, First Nations, local government, provincial government, stakeholders, and consultants. Each grouping was subdivided into subgroups and membership in coalitions was identified (see Table 1).

As mentioned above, from an ANT perspective, groups should not be assumed before research commences. I became aware of groupings used in my sample frame from engaging with the material collected in the first step. These groups were identified “by the actors themselves” in press releases, campaign materials and in official processes such as the LRMPs. I found, in putting the frame together, that the groups were not entirely distinct, with some individuals fitting into more than one group. Indeed, group formation in the GBR was a fluid and contested process with many overlaps and hybridizations. For these reasons, identification of these groups was a useful procedure (1) to identify the groups that had formed, (2) to identify individuals who were (and are) associated with the GBR project, (3) to gain a sense that the groups were not static but underwent a process of formation, and (4) to learn that individuals moved between groups and were at times in more than one group at a time. The latter point is crucial since, as Latour (2005) suggests, “actors are *made to fit* in a group – often in more than one” (p. 28).

<b>Group</b>	<b>Subgroup</b>	<b>Coalitions</b>	<b># Individuals</b>	<b># Letters Sent</b>	<b># Responding</b>	<b># Interviewed</b>
Environmentalists (E)	Mainstream and grassroots	RSP	42	11	6	7
Forestry Industry (F)	Major and small forestry, labour	CFCI	29	13	9	8
First Nations (FN)	Bands/Nations	CFN, NC	74	18	4	1
Local Government (LG)	City, town and regional district		26	3	2	2
Provincial Government (PG)	Ministries		25	5	5	5
Stakeholders	Sectors		33	1	0	0
Consultants (C)	Consultants and Academics		67	9	7	11
<b>TOTALS</b>			<b>296</b>	<b>60</b>	<b>33</b>	<b>34</b>

**Table 1: Interviews by Group**

Throughout the dissertation, I identify interviewees’ “location” within the emerging networks using the abbreviations given in the left-hand column of *Table 1*. In order to ensure confidentiality, I have used a coding scheme that hides the interviewee’s identity. Identification follows this format: position – coded identity: page number of transcript. As an example, this identification scheme will look like the following: E – NT: 156.

Next, I reduced the number of individuals in my sample by consulting with a key participant who was (and remains) deeply involved with the project, both from provincial government and First Nations groupings. This person helped me identify key individuals

on the basis of degree of involvement, influence, representation of wider constituencies, and time period. I subsequently shared my reduced list with the individual, who then stratified each grouping into “top” and “bottom” lists. To deal with the possibility of bias that could occur from using the help of one of the individuals in the process, I asked all of my interviewees who they thought would be important people to talk to. I found that the original list that I developed was reinforced by interviewee responses.

Expecting a response rate of approximately 60% and with a goal of conducting approximately 35 interviews, I pared the “top” list down to approximately 60 names and sent out 60 letters. Of these, 33 people responded, yielding a response rate of 55%. Of these, 6 were environmentalists, 9 were forestry industry, 4 were First Nations, 2 were local government, 5 were provincial government, and 7 were consultants. However, I was able to talk to four individuals who did not reply, but whom I met at meetings which I attended (see below) and at which they agreed to be interviewed. In addition, I was able to add 5 more interviewees through referrals and in-person requests. By contrast, there were 6 people who responded to letters with whom I did not conduct an interview. In one case, logistical reasons prevented an interview, in two cases we decided that the interview was not necessary, in two other cases, the contact went “cold,” and in a final case, I was unable to obtain band council approval to conduct the interview.

In total, I conducted interviews with 34 people, made up of 7 environmentalists, 8 forestry industry, 1 First Nations, 7 local and provincial government, and 11 consultants. Response rates for First Nations was very low, with only 4 out of 18 responding to my letter, and with only 1 First Nation person interviewed. However, 4 of the consultants interviewed worked exclusively for First Nations organizations, providing them with

technical support and representing their interests in land use planning forums and negotiations with other parties. This brings the number of individuals interviewed within the First Nations category to 5. Moreover, there are two main First Nations organizations that together represent the interests of almost all First Nations on the coast: Coastal First Nations and the Nanwakolas Council. I interviewed key individuals who represent these organizations. Stakeholder sectors such as mining and tourism were not included in the scope of the research for logistical reasons and for the reason that the actors consulted did not identify these sectors as key players in contrast with ENGOs, forestry, First Nations, communities (represented by local government), and the Provincial Government. One individual among these stakeholders was identified as a key individual, but did not respond to my letter requesting his participation in my study.

Interviews were conducted face-to-face at the organizations where the individuals worked, or at a place of convenience such as a coffee shop. In a few cases where it was not possible to meet face-to-face, interviews were conducted by telephone. I designed an interview guide template around 13 topics, including description of the area; history of the case; key groups; the GBR project; key actions; environmental campaigns; group negotiations; LRMP history; the LRMP process; First Nations group formation; the government-to-government process; ecosystem-based management; and the conservation economy. The full guide was not used in individual interviews, however. Some topics were more relevant to some interviewees than others, such as First Nations group formation to First Nations and the environmental campaigns to environmentalists. Accordingly, I created interview guides that were tailored to each group. Next, since each individual had a different history in the process and engaged in it with different



skills, knowledges, and interests, I designed an interview guide for each individual before the interview. I based these guides on the individual's grouping and what I knew of their history and position in the process. For example, if I knew that they sat as an environmental representative on the LRMP process, I would ask them specific questions about the LRMP process. By contrast, if they belonged to the environmental grouping but did not engage with the LRMP process, I asked only general questions about it.

Some texts on research methods advocate that researchers ask the same questions of all interviewees. Such an approach allows the researcher to (1) systematically compare responses, and (2) relate differences among responses to other observed differences. Such a structured approach to research assumes that there is a given reality – either pointed out by interviewees' responses or in the responses themselves – that can be explained by the researcher. This approach tends toward a “sociology of the social” (Latour, 2005b) which invokes social forces and structures to explain the behaviour of the subjects of a study. ANT, on the other hand, engages in a “sociology of associations,” following the actors themselves. Interviewees' responses to questions are analyzed as traces of processes of network formation and are not analyzed to find underlying forces. Thus, since the goal is not to systematically compare responses to analyze differences and offer an explanation, the same questions do not need to be asked of every respondent. Instead, I took an unstructured approach in my research design. According to Maxwell (2005), unstructured approaches,

allow you to focus on the *particular* phenomena being studied, which may differ from others and require individually tailored methods. They trade generalizability and comparability for internal validity and contextual understanding, and are

particularly useful in revealing the processes that led to specific outcomes. (p. 80, emphasis in original)

From the ANT perspective, I recognized that interviewees were located in unique positions with respect to the actor networks that they were in part constructing. Thus, the focus was on learning about these networks from their perspective. The interview guide served to direct conversation towards certain topics, such as EBM and the conservation economy. However, the interviewees were free to discuss processes and issues that they considered to be important. Indeed, I found that most of the interviewees were so knowledgeable and so invested in the process that I would only need to provide an introduction before they would take the lead and launch into impassioned accounts of the processes and events involved in the GBR. Interviews generally lasted for approximately 1 hour. They were conducted between September 2007 and January 2008 in Vancouver, Victoria, Nanaimo, Campbell River, Port McNeil, and Port Alice.

In addition to collecting textual and audio-visual material and conducting interviews with key participants, I engaged in a limited degree of observation. This consisted of attending two meetings of the Ecosystem-Based Management Working Group in Vancouver and Victoria, and attending a conference at which actors presented the GBR in Vancouver. While limited, the observations that resulted gave me a sense of how some of the main actors relate with one another in group settings and how decisions are made. Also, I collected textual materials while in the field doing interviews. Generally, the interviewees offered these to me.

### **3.2 Analytic Procedures**

Ideally, analysis of materials commences as soon as collection begins (Maxwell, 2005, p. 95). According to Maxwell (2005, p. 96), there are three main strategies for analysis: memos, categorizing strategies, and connecting strategies. Memos are researcher notes that are used as a means of reflecting on and analyzing research materials, theory, methods, and observations. They are recorded at all stages of the research and organized in a format that allows for easy retrieval. “Categorizing strategies” are ways of reducing data into manageable units by grouping information into categories. These may take the form of: organizational categories, in which data is sorted into broad areas or issues; substantive categories, in which data are organized into descriptions of different topics, concepts, events, and so forth; and theoretical categories, in which data is placed in a more general or abstract framework (Maxwell, 2005, pp. 96-97). Connecting strategies are “attempts to understand the data ... in context, using various methods to identify the relationships among the different elements in the text.” The point is to “look for relationships that *connect* statements and events within a context into a coherent whole” (Maxwell, p. 98).

I applied these procedures at each stage in data collection and analysis. As noted above, I collected a great deal of textual and audio-visual material. During this process, I created organizational categories in which to place the materials. For example, I organized texts into “grouping,” “process” and “topic.” Each category includes subcategories. For example, the topic category is subdivided into “agreements,” “campaigns,” the “conservation economy,” “ecosystem-based management,” and the

“spirit bear.” Each of these categories has further subdivisions and so on. These organizational categories served the practical purpose of organizing a vast quantity of material into a manageable system, facilitating retrieval of specific types of data. Additionally, it served the analytic purpose of learning from the actors themselves what the main pieces and elements of the GBR project consist of.

As I collected and engaged with this data, I wrote memos on individual topics, key issues and themes, conceptualization, actors, actions, research focus, and research design. These memos helped me understand the features of the GBR project and how I was engaging with it. Moreover, I began to draw maps of relationships among the elements of the GBR. These sketches served as a connecting strategy, which is the key strategy for actor-network theory. They helped me get an initial sense of how elements became connected over time and what arose as a result of some of the transformations. All of these memos and sketches became resources on which I drew to follow the controversies involved in the GBR, to trace the chains of translations involved in the settlement of these controversies through the obligatory passage point of EBM, and to represent the “collective” that the GBR actors were together forming. Furthermore, since my research project is also an actor that has become linked to the GBR collective, these memos also serve as sources of data that I will draw on in the following chapters.

I also wrote while I was in the field conducting interviews. First, this involved adapting the interview schedule for each interviewee. As mentioned above, this process was guided by my evolving understanding of the elements of the GBR project and how they were associated, and by my knowledge of the individual’s position in the network. Second, I wrote notes as interviewees were talking. Third, I wrote memos reflecting on

the interviews, the interview process, and broader ideas and relationship mapping that were prompted by the interviews or other reflections. I collected these notes and memos in three notebooks.

I used the qualitative analysis software Atlas.ti to code the interviews. Since I did not come to the field with predefined theories or conceptual frameworks, I chose an “open coding” process (Strauss et al., 1990) in which I read the interviews and developed codes from the text as I went along. Codes were primarily organizational and descriptive, with primary codes including: actors, agreements, EBM, ecology, economy, governance, groups, ideas, knowledge, law, land use planning, people/nature, relationships, and “vision.” Each code included sub-codes. For example, “ecology” encompassed: conservation management, ecological integrity, old growth, operating areas, protection, and risk. Some of these sub-codes were further subdivided. For example, “protection” encompassed: conservancies, moratoria, and precaution. With the large number of codes, sub-codes, sub-sub codes, and so on, I developed over 260 codes in total. However, there are only 15 first order organizational and substantive codes. One first order code – “ANT codes” – functioned as a theory code, seeing as it included 15 concepts related to ANT. Since the purpose of the coding exercise was not to rearrange the data into categories in order to facilitate comparisons between things in the same category but to group information into descriptive categories so as to learn how elements are connected, a finer degree of precision and a larger-than-normal number of codes is warranted. 3185 codings were applied to 1885 quotations.

I used Atlas.ti’s “network view” function to visually arrange and connect the descriptive codes with one another. This function is primarily designed as a theory-

building device, in which codes (representing concepts) are connected with one another. However, as my codes are primarily descriptive, the linking function allows me to visually represent elements that are linked in the field. These network views complemented my sketches of relationships, allowing me to trace the formation of the GBR network and, in Atlas.ti, to link that formation to quotations that talked about it.

Finally, I also engaged in writing as I coded. First I attached comments to quotations. The comments contextualized the quote and highlighted issues that I believed to be important about the quote. Second, I wrote five (self-defined) categories of memos: application, commentary, method, queries, and theory. In the first category, I wrote memos that applied ANT concepts to the empirical material. The “commentary” memos commented on particular aspects of the case, such as the market campaign and protected areas. “Method” memos focused on issues like the work plan, things I needed to do, thoughts about how I might structure the report, reflections on the coding process, and so forth. “Queries” included memos on questions that I had about the material and case, and things that I needed further information on. Finally, “theory” memos reflected on ANT concepts, often with the empirical material serving as a source of prompts and examples. As for the memos written during the collection of textual and audio-visual material, they will also serve as sources of data.

### **3.3 Validity**

The concept of validity refers to “the correctness or credibility of a description, conclusion, explanation, interpretation, or other sort of account” (Maxwell, 2005, p. 106). The goal is not so much being “right” (as in accurately reflecting an observer-independent reality), but adequately dealing with the possibility of being “wrong.” That is, the research study must deal with alternative explanations and other sources of validity threats, not by attempting to make them disappear, but by describing how they may influence the conclusions. A key threat to validity in qualitative research is researcher bias (Maxwell, 2005).

First, bias in the form of conclusions that conform to the researcher’s preconceptions needs to be addressed. It is thus important to explain any possible biases and how they may influence the research directly. My interest in the GBR derives from my long interest in and commitment to environmental issues, as well as my connection to British Columbia as a place. In addition, I am influenced by social constructionist approaches to environmental issues that consider the society/nature dualism to be a key cause (one of the key roots) of environmental problems. As such, I am committed to exploring cases in which “nature” and “society” are constructed as categories. However, I also believe that social constructionist approaches are insufficient because they do not consider the role of nonhumans, and am desirous to uncover cases in which the assumed society/nature dualism is questioned and transgressed. I have chosen the GBR to study for precisely this reason. The changing nature of environmentalists’ strategies, conceptions of nature, relations with First Nations, and models of resource management

disrupt, I believe, the society/nature dualism and associated dualisms. In addition, this is the reason why I draw on actor-network theory to inform my methodology.

With respect to analysis, I expected that the case would reveal ways in which the “modern constitution” (Latour, 1993) does not hold. However, I was open to the possibility that the conflict revolves around conventional distinctions between society and nature. Indeed, as I show, I found negative instances (Creswell, 1998, p. 196) where “society” and “nature” were employed as conceptual categories. However, I did find evidence that early attempts to purify heterogeneous networks into the categories of nature and society were replaced with attempts to assemble humans and nonhumans in a collective. In addition, I am aware that other perspectives on the conflict – such as purely political, economic, or cultural ones – are just as plausible. Thus, I do not make the claim that the “collective dimensions” are the real or true ones, or that they are more important than other perspectives. By contrast, I offer a network approach to the study of INRM as a complement to other studies and suggest that it provides a possible, and useful, way of understanding new associations of humans and nonhumans in such projects.

Moreover, the validity of my descriptions is bolstered through “triangulation,” or the collection of “data that are detailed and varied enough that they provide a full and revealing picture of what is going on” (Maxwell, 2005, p. 110). I engage in “thick, rich description” (Creswell, 1998, p. 196) to convey this picture, giving the reader enough information to decide whether my presentation and analysis are plausible. Finally, by “following the actors themselves,” I reduce the influence of researcher bias. By withholding presuppositions about the field and, instead, deploying controversies over actors and action, I have provided a venue in which the story of the GBR can be told.



However, I am aware that I am the one telling the story, and I do not want to convey the impression that I am trying to transparently reflect an observer-independent reality. My perspective on the GBR is just that: one perspective. The plausibility of my perspective, on the basis of the validity checks detailed above, is up to the reader to decide.

## **4 Problematizing the Coast: Shifting the Terrain of BC's Wilderness Conservation Movement**

### ***4.1 Finding British Columbia's "Forgotten Coast"***

When I arrive on the mid-coast in the early 1990s (here, in this report, in 2009), the first thing that I notice is an absence. This is the place that would become the "Great Bear Rainforest" but there are no maps, no books, no news releases, no websites to tell me so. There isn't even an agreement – or a failure to reach an agreement. As far as environmentalists go, no one seems to be around. Environmentalists don't seem to be interested in this place at all. Where is everybody? I could ask Wayne McCrory, because he's here.

Unfortunately, a decade and a half later, I never got a chance to talk to him. We tried to connect, but there were four months of work between us and a potential telephone interview, as well as a crowd of "post-graduate students studying the process and outcome of the coastal land-use issues in B.C." vying for his time (personal communication, August 29, 2007). But I know some things about what he was up to on the coast. McCrory had been active on the coast since the mid-1980s trying to encounter – and then protect – a white, black bear. In an email communication, he told me,

Along with Dr. Stephen Herrero and Ralph Archibald, a provincial bear biologist we flew into a valley called the Khutzeymateen in a late fall storm in October in about 1985 after I/Valhalla Society received an anonymous envelope about a famous bear valley about to fall to the chain-saw and therein the story begins (personal communication, August 29, 2007).

This story, like all stories, is multiple and mostly untold, so I can only scratch at a part of it (but that's all I really need in order to tell *my* story). One of McCrory's stories has to do with his efforts to create Canada's first and only grizzly bear sanctuary, as well as coastal BC's first protected estuary (Khutzeymateen Grizzly Bear Sanctuary was created in 1994 on BC's north coast). But this is just the lead-in to another of his stories, which involves his and fellow "ursaphiles" (McCrory, 2003) encounter, in another part of the coast, lower down in Kitasoo and Gitga'at territories, of a white bear. A press release in which McCrory's environmental group, the Valhalla Wilderness Society (2006), applauded the announcement of the 2006 agreement, stated:

Eighteen years ago McCrory and a few of his colleagues were awe-struck by their first sighting of a white bear on Princess Royal Island. "We saw bears and salmon in every big and little valley, cathedral groves of giant Sitka spruce, and wolves on the beaches," says McCrory. "It was UNLOGGED and about as close to a wild bear heaven you could ever find on this earth."

Even earlier than McCrory, another non-native person took up an interest in the mid-coast's white bears. In 1905, W. T. Hornady, a naturalist from the New York Zoological Society, described a white bear that had been spotted in a range spanning from River's Inlet in the South, to the Nass Valley in the North, and east up the Skeena River to Hazelton, but principally concentrated on the islands and adjacent mainland on the north central coast. Hornady named the bear after Francis Kermode, an assistant to

the director of the BC Museum of Natural History, calling it *Ursus americanus kermodei*, or Kermode American Black bear. Hornady considered the bear to be a distinct species, but in 1928 it was reclassified as a subspecies of the black bear that contains a unique double recessive gene endowing what would otherwise be black bears with white fur.

In the mid-1980s, McCrory and his colleagues searched for white Kermodes. After the “awe-inspiring” encounter in 1987, they developed a proposal for a conservancy, calling for the protection of 262,000 hectares on Princess Royal Island, smaller islands, and several valleys on adjacent mainland areas. They termed the proposed protected area the “Spirit Bear Conservancy,” coming up with a name and image that would have a large impact on the future development of the GBR and the Coastal Land Use Agreement (CLUA). According to McCrory (2003), “The spirit bear became the international poster icon of the whole Great Bear Rainforest Campaign.”

McCrory and his “spirit bears” are an important story about the mid-coast in the early 1990s. At the time, the area was still not called the “Great Bear Rainforest.” Why do I refer to the region as the “mid-coast”? I’m not sure if McCrory called it that: he was primarily focused on calling one area the “Klutzyemateen Grizzly Bear Sanctuary” (which is north of the mid-coast) and another area the “Spirit Bear Conservancy.” I’m calling the region the “mid-coast” because that’s how it was known by somebody else who was interested in it: the BC Ministry of Forests (MoF). MoF called it the “Mid-Coast Timber Supply Area.” According to MoF (2002), a Timber Supply Area is “an area of Crown land designated by the minister of forests in accordance with the Forest Act and managed for a range of objectives including timber production.” Thus, in the early 1990s, the region was connected to forestry legislation and the Ministry of Forests’

authority to determine how it was managed, including the issue of timber production. This is important because the management of the area, and its timber production, became significant issues. Merran Smith (2006) indicated the importance of the name “Mid Coast Timber Supply Area” and its contested status in her speech at the 2006 CLUA announcement,

In 1996, when we started on this work, this area was known as the mid coast timber supply area, and the only value of this rainforest was dollars per cubic meter. Today, the Great Bear Rainforest is valued as an ecological legacy.

This is another important story. How did the region shift from a network of relations which were measured in monetary terms to one which is measured as an “ecological legacy”? Of course, this is also a story of whether forestry business and ecological legacies are compatible with one another and whether their conflict is the *only* story to tell. So why don't I use any of the many First Nations' terms for the areas making up the central and north coasts? To tell you the truth, I don't really know any of them. But the reason for that is that they didn't seem to come up. Maybe they would have if I had the chance to talk to some of the First Nations people who live in the area. I did send out letters to 18 First Nations people who were identified as connected to the issue, but I only got 4 letters back and ended up only interviewing one person who is actually First Nations. I suspect that one reason for a poor response is that I sent letters rather than personally visiting the communities (a stipulation of the Behavioural Research Ethic Board). Another reason may be that those folks I sent letters to simply were not interested in talking to me. This would not be surprising, since First Nations have not always had the best relationship with the research community. Indeed, communication

with one tribal council displayed quite a degree of distrust of my intentions, even though I received consent by one of its members for an interview and even though I sent it all of my ethical review materials and completed its research registration form. As a result, I never gained council approval to interview the member I had been in contact with. In some cases, contacts went cold, while, in yet other cases, I suspect that individuals never received a letter.

Nevertheless, First Nations did not use any of their own names publicly, aside from using the phrase “traditional territories,” which is interesting in its own right. For example, in the congratulatory words accompanying the CLUA announcement, KNT First Nations president Dallas Smith noted, “now our people have a more active role in how and where business is done in our traditional territories” (as cited in Government of British Columbia, 2006). Similarly, Heiltsuk Chief Ross Wilson anticipated that “completion of the government-to-government land use agreements will ensure the well-being of the lands, waters and peoples within our Traditional Territories” (as cited in Government of British Columbia, 2006). It makes sense that First Nations kept their own names to themselves, since ownership and the right to speak in one’s own name was also an issue. Additionally, First Nations’ voices had been appropriated in the past.

So here we are on the “mid-coast” in the early 1990s. The Ministry of Forests is here, with its “timber supply area,” McCrory is here with his “Spirit Bear Conservancy” proposal, and First Nations are here with their “traditional territories.” Otherwise, it is pretty quiet. There are some outdoor enthusiasts having fun paddling around in a couple of recreation areas that were established in the mid-1980s.

Fiordland Recreation Area and Hakai Protected Area had been established on the central coast in 1987 as a result of Premier Bennett's Wilderness Advisory Committee (The committee had been assigned to deal with the growing war in the woods – controversies over particular areas such as Mears Island, South Moresby Island, and the Stein Valley). And then there was the Kitlope Valley. Ecotrust came all the way up from Portland in the early 1990s to help the Heiltsuk oppose West Fraser Timber Co.'s plans to log the Kitlope Valley. Some of BC's wilderness preservation groups became involved, including the Sierra Club of Western Canada, the Western Canada Wilderness Committee, and Valhalla Wilderness Society (McCrary's group). They even managed to get it designated as a conservancy, to be co-managed by the province and the Heiltsuk, in 1994.

Beyond these areas, there was really only one other small conflict in the region – the Koeye River Valley, adjacent to the Hakai Pass, in 1990. However, this one got Ian and Karen McAllister interested, which is another important story. MacMillan Bloedel was planning on logging the valley and a developer was planning on building a resort at the mouth of the river. Ian's dad, Peter McAllister, a former director of the Sierra Club of Western Canada, organized a sailing trip to the Koeye River, inviting bear biologists, photographers, journalists, environmentalists and his son, Ian. According to Ian (McAllister et al., 1997), in the evocative prose nestled between the gorgeous photographs of his 1997 coffee table book promoting the "Great Bear Rainforest":

On the return journey through Queen Charlotte Sound, everyone on board fell silent as the obvious question moved through us like electricity. If the Koeye River could be so spectacular and yet so unrecognized, what about the eighty or

ninety other river valleys on the mainland coast that were still intact and unprotected? (p. 13)

This is a pretty good framing device to get us thinking about the coast as a whole. And that's what McAllister started doing, he says. Moreover, that's what his coffee table book is about – it lets us see, through photographs, maps and a narrative of his journey up to the BC-Alaska border and back down, “Canada's Forgotten Coast” (the subtitle of his 1997 book). Before he wrote it, BC's central and north coasts were not a single thing – the “Great Bear Rainforest.” Rather, there was just the “spirit bear,” the “mid-coast timber supply area,” First Nations' “traditional territories,” and a few protected areas. These elements would be rearranged and given new meaning through the production of a thing that was to become the object of an environmental campaign.

## ***4.2 Constructing the Object of Environmental Politics***

What is the “object” of environmental politics? Is it a material reality “out there” that needs to be brought “in here” and placed on the political agenda? Is it a set of beliefs that remains forever “in here”? The view pursued in this dissertation is that the object of environmental politics is a “thing” in the etymological sense of “a gathering or assemblage” (Latour, 2005a). That is, the “thing” that comes to form the centre of environmental politics is produced when material, discursive, and collective elements are gathered in a format that provides this gathering some form of representation. This representation is itself heterogeneous, at once scientific, discursive, and political. As I



will show in this chapter, practices that mixed science and politics produced representatives of the central and north coasts in the form of a “coastal temperate rainforest” (representing a globally rare forest type), the “profound symbol” of the grizzly bear (representing a place of rugged beauty and grandeur), and as a satellite map that lets people see “how much of the forest was gone and what remained” (Sierra, 2008). In other words, in this chapter I look at how environmentalists (re)defined, or “problematized” (Callon, 1986), the central and north coasts through material and symbolic means. How did environmentalists define the coastal forests in a way that interested other groups enough to want to usher in a campaign to save them?

Just as the “object” of environmental politics cannot be taken for granted, neither can its “subject.” As noted above, there was no pre-existing group of environmentalists with interests in the central and north coasts. This group and their interests had to be constructed to the same extent that the “Great Bear Rainforest” had to be constructed. In the following, I trace processes that produced both the GBR as an object of environmental politics and the group – discussed more fully in the next chapter – that emerged to protect it. These processes involved a “scientific” ecosystem mapping project, a “discursive” project to collect stories and images of the coast, as well as a “collective” project, woven through the other two, to shift the focus and interests of environmentalists. I do not consider these processes to be attached to different spheres of reality. Rather, I show that all processes include material, discursive, and collective elements.

In this chapter, I show how these processes are linked together through what Latour (1999) terms “circulating reference.” There is no huge gap for the central and

north coasts between the way they exist in themselves and their scientific and discursive representations. Rather, what I show is that the central and north coasts are progressively transformed into the representation of the “Great Bear Rainforest” through a series of intermediary steps, each of which involves the application of a frame of reference. I show how frames and formats are applied to mobilize the central and north coasts, transforming them along the way. This is not a case of applying socially constructed ideas to a material reality, since the frames and formats consist of devices and data as well as metaphors and aesthetics. Moreover, the material itself is heterogeneous, since it includes such things as land cover data, photographs, and maps. Rather than split up this heterogeneous process into science, discourse, and politics, I trace a single chain that is simultaneously scientific, discursive, and political. At each stage, the “material” reality of the central and north coasts is transformed by the application of a new frame, thus producing a new hybrid reality that becomes material for the next frame.

This process does not achieve a transparent representation of an external reality, nor a social construction having more to do with ideas and values than materiality, but what Latour (2005b) refers to as a “panorama” (p. 183). In other words, I show how the variety of elements produced in relation to the central and north coasts are assembled in such a way as to present a total view of the region. This view presents the object of interest as a whole, showing what it fits into and what fits into it. It is “Canada’s Rainforest,” a “coastal temperate rainforest” that is globally rare. It contains beautiful creatures and it is connected to future generations. These connections between the region and other places, times, and people are all staged in a single representation that can then be made to circulate to other places and times. The difference between my account of

this representation and a social constructionist account is that I show how it is produced through simultaneously material and discursive means and, in the next chapter, how the representation circulates in socionatural networks.

## ***4.2 Translation 1: The Coastal Temperate Rainforest***

One of the central features of the GBR campaign, as we will see in the next chapter, was the claim that “one of the largest remaining tracts of ancient coastal temperate rainforest in the world is found in the Great Bear Rainforest on B.C.’s Mainland Coast” (Thomas et al., 1998). Where did this claim come from? Little evidence of origin accompanies this claim, since it was presented as a statement of fact (c.f. Latour, 1987). Did it arise through scientists’ discovery of a previously unrecognized forest type lying along BC’s coast? Or, was this a socially constructed representation projected onto the forest for political purposes? Was it a case of science or of politics? If we look at the practices involved in the production of the “temperate coastal rainforest,” we find that these questions involve false dichotomies between reality and representation and between science and politics. What we find, instead, are activist scientists who (1) constructed a reality that did not exist before these interventions, and (2) quite purposefully mixed science and politics.

In the early 1990s, Ecotrust and Conservation International engaged in a “Coastal Temperate Rain Forest Mapping Project” that sought to define the “coastal temperate rainforest” and place it in its “global context” (Weigand et al., 1992). As they write in the introduction of their 1992 report on the project,

This paper proposes a new biome, a subdivision of the previously acknowledged temperate rain forest type, the coastal temperate rain forest [...] The decision to formally define this forest type grew out of an interest in placing the distribution and status of coastal temperate rain forests in a global context. Like the tropical rain forests which have rightly received so much attention, these forests are an important part of our global heritage. (p. 1)

As this passage makes clear, this project was simultaneously scientific and political. On the one hand, the project involved the identification and specification of a real thing out there in the world, the “coastal temperate rainforest.” While it represents a “new biome,” the authors did not invent the coastal temperate rainforest; rather, it was “proposed” as a “subdivision” of a “previously acknowledged” reality: the “temperate rain forest type.” Nevertheless, the rainforest is a hybrid of concepts and substance: simultaneously form – the subdivision of a category – and matter – a previously acknowledged reality. At the same time, the identification of the coastal temperate rainforest was the consequence of a “decision.” The authors chose to “formally define” this forest type in order to link it to tropical rainforests which, they note, have “rightly received so much attention.” The political traction of such a linkage is substantial; as noted by one interviewee:

Vicky Husband tells this fabulous story of, um. . . I think this actually happened in Rio when she was down there some time in the late ‘80s or one of the follow up, something like that. And Michael Apsey, Mike Apsey is his name. He was the head of COFI at the time, the Council of Forest Industries, and they were all over the tropical rainforest protection stuff, they thought this was great. COFI was up there saying, “We’ve got to protect the tropical rainforest, one is the planet, blah, blah, blah.” Well, along with the crappy things that are here right? So he was down there, she runs into him in the hallway somewhere and she made a comment to him, something to the effect of, you know, Canada has a rainforest as well, and one of these days, people are going to figure that out. And she said, “he just went white because he knew what that meant.” [Laughter] [E – MN: 82]

Thus, the goal of defining the coastal temperate rainforest was both scientific and political: it involved the subdivision of an acknowledged reality that it was then possible to link to a politically charged issue. However, this was not a simple project: the authors could neither simply point to the coastal temperate rainforest that was out there waiting to be discovered, nor invent it out of the blue. Many steps were needed to progressively “load the world into discourse” (Latour, 1999, p. 96). That is, the authors worked to translate the central and north coasts into the “coastal temperate rainforest” through a number of frames and formats. Latour’s expression is useful here since it keeps us from thinking that the authors projected a representation onto material reality; by contrast, material reality was mobilized, enrolled, and shaped into new forms through definitions and devices, thus creating a materially-dense representation – one that can be traced back to its source.

First, the authors (Weigand et al., 1992) needed to decide which elements would be used to define the coastal temperate rainforest, a difficult task since “within the scientific community there remain[ed] some discussion regarding a global definition of coastal temperate rain forest” (p. 3). Indeed,

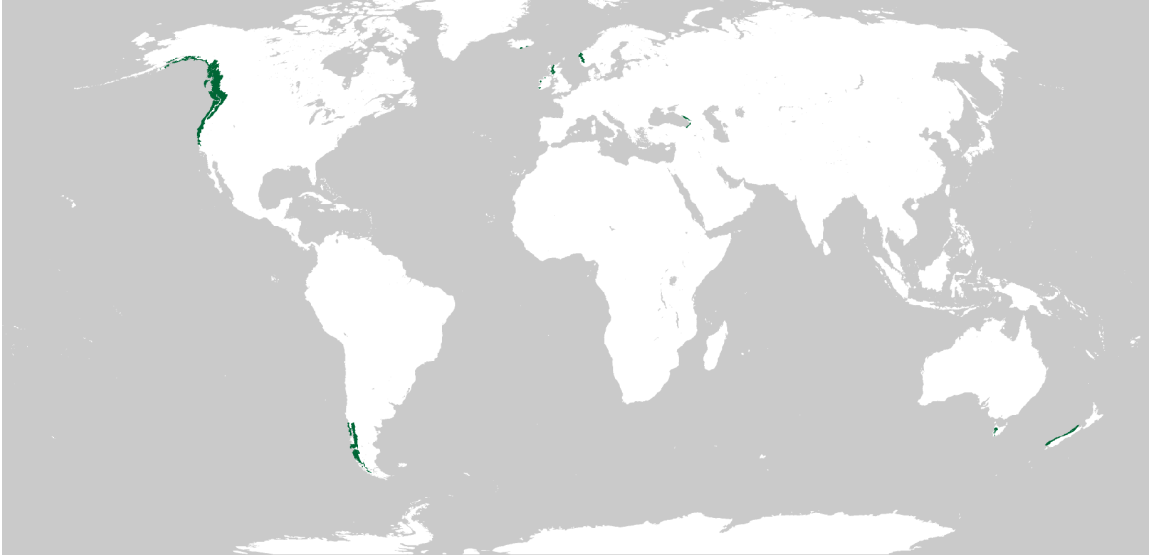
Forest classification schemes within the coastal temperate rain forest zone vary considerably from country to country. Chile and Argentina, for example, classify their forests by geoclimatic parameters at the regional level, and by microsite and habitat at the community level. Tasmanian ecologists distinguish forest types biogeographically, according to altitude and climatic variables. (p. 3)

Given this level of uncertainty and even controversy over the features that define the coastal temperate rainforest, the authors were forced to make a decision. Weigand (1992) of Ecotrust proposed the following “working definition” of the coastal temperate

rainforest: “areas between 32 and 60 degrees latitude, with the presence of vegetation (if not currently, then originally in a forested condition), with at least 2000 mm (80 in) of annual rainfall” (p. 4). This definition frames and orders data associated with the coastal forests. However, the frame does not simply consist of words, ideas, beliefs, and meanings that “socially construct” the forests. Rather, it is a hybrid frame made up of heterogeneous materials: a political goal of inducing interest in a particular region, a working definition bringing provisional settlement to a scientific controversy spanning several countries, and geographic, botanical, and meteorological specifications. The frame enrolls and assembles rain, space, and plant life – which had already taken the form or frame of tables and maps providing information about precipitation, vegetation, forest, and land-use. The result is the translation of particular areas of the earth into a forest type – the coastal temperate rainforest – which were then assembled onto a map to depict their global distribution. In Weigand’s judgment, approximately 30 million hectares of coastal temperate rainforest existed before major human alterations,<sup>11</sup> an estimation that he depicts visually on a map (see *Figure 2*).

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<sup>11</sup> Subsequently, Ecotrust/Conservation International digitized the maps employed by Weigand (as well as other maps), using a Geographic Information System. These maps were then overlain with digitized annual precipitation maps published by UNESCO. Their computer-based analysis arrived at 41 million hectares as the original extent of coastal temperate rainforests world wide. The discrepancy derived from differences in precision between the two methods, the use of different maps at different scales, and the use of informants and ground, truthing in the manual but not computer method.



**Figure 2: Original Global Distribution of Coastal Temperate Rain Forests**

Source: Wolfe et al. (1995). Reprinted with permission.

Not only does this map situate the original locations and extent of coastal temperate rainforest in their “global context,” but by contrasting the vast white spaces with the small specks of green, it visually depicts the global rarity of the coastal temperate rainforest type. Against this backdrop, the authors could highlight the threatened nature of this forest. While they admit that “the total area of remaining coastal temperate rain forest is unknown,” they refer to anonymous “researchers [who] believe that 17.3 million hectares (42.7 million acres) or 56% of the total has been logged and converted to non-forest use”<sup>12</sup> (Weigand et al., 1992, p. 5).

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<sup>12</sup> A later development helped to place the region in a “global context.” In March 1997, the World Resources Institute (WRI) released a report entitled “Last Frontier Forests: Ecosystems and Economies on the Edge” (Bryant et al., 1997). The report claims that only 20% of the world’s original forest cover remains, that only 3% of these forests lie in the temperate zone, and that temperate frontier forests are the most endangered of all. The report also notes that half of the world’s temperate forests are gone.

The report and its attempt to formally define a new biome as a subdivision of the previously acknowledged temperate rainforest type was the outcome of practices that mixed (among other elements) working definitions, precipitation, rhetorical devices (maps), and satellite imagery for the purpose of engaging in public debates about land use. Is the coastal temperate rainforest real or constructed? Is it science or is it politics? If we accept the first perspective, then we grant scientific representation a privileged access to reality. According to this view, scientists go out into the world (or the laboratory) to “discover” facts about the world that always existed, independent of the work of scientists to uncover them. Knowledge of natural processes only enter the political sphere after the fact, so to speak, through the work of scientific popularizers and activists who work to put scientific claims on the political agenda (Hannigan, 2006; Kranjc, 2002).

By contrast, if we accept the second perspective, then we’re suggesting that people can only know the world through social processes of interpretation, and that science – rather than escaping these processes to directly access the world as it is in-itself – actively contributes to the production of frameworks of meaning (Irwin, 2001). Despite claims of critics (Dunlap et al., 1994; Murphy, 1994), the latter perspective generally does not hold that there is no reality behind or beyond social constructions, but withholds ontological claims altogether in order to focus on epistemological questions (Burningham et al., 1999). Thus, notwithstanding their differences, both perspectives entail that mixtures of science and politics occlude access to reality: the first as a form of bias; the second as an inevitable effect of epistemology.



However, a third possibility exists: reality is *both* constructed *and* real; indeed, real *because* it is constructed (Latour, 1999a, p. 127). In this view, there is no huge gap between representation and reality that is either bridged by an accurate correspondence between word and world, or filled with social constructions. Rather, the connection between word and world is made through movement across multiple gaps, or what Latour refers to as “circulating reference” (Latour, 1999a):

At every stage, each element belongs to matter by its origin and to form by its destination [...] We never detect the rupture between things and signs, and we never face the imposition of arbitrary and discrete signs on shapeless and continuous matter. We see only an unbroken series of well-nested elements, each of which plays the role of sign for the previous one and of thing for the succeeding one. (p. 56)

In Latour’s terms, the classification of the coastal temperate rainforest as a global forest type does indeed refer to BC’s coastal forests, but not through a correspondence between the concept “coastal temperate rainforest” and the coastal forests. If the authors walked (or, more likely, boated) into BC’s coastal forests, they would not have seen, smelled, or touched a coastal temperate rainforest. However, this does not entail that the authors are horribly biased, merely projecting an unrecognized social representation onto the forests. Rather, as described above, there are a number of intermediary steps linking the word and the world, thus “loading” the coastal forests into the report on the coastal temperate rainforest.

At each step – coming up with a provisional definition, collecting data on precipitation, vegetation and land cover, calculating an estimation of original coverage, translating that estimation into a visual depiction on a map – there is a gap that must be

crossed. “Previously acknowledged” definitions of temperate rainforests must be sifted through and translated into a provisional definition of the coastal temperate rainforest; this definition must be translated into data; data must be translated into an estimate; the estimate must be translated into a map; the map must be translated into a call to action. At each step, the thing undergoes a transformation but nevertheless refers back to its former self: the map can be turned back into an estimate, an estimate back into raw data, and so on. At the extremes are BC’s coastal forests and the concept of the coastal temperate rainforest. However, it is the chain of translations between that links them together, the circulation in both directions across the multiple gaps of reference. It is the entire chain – one constructed out of provisional definitions, rhetoric, data, and satellites – that provides the reality of the coastal temperate rainforest *and* its need to be protected.

Particularly with respect to the latter feature, the reality of the coastal temperate rainforest attests to the fact that it came to serve as the unquestioned basis for other claims. Its process of construction, the controversies at the heart of the provisional definition became hidden from view in a black box (Latour, 1987) as the following key claims were made:

- 1) Coastal temperate rainforests are globally rare: “Coastal temperate rain forests constitute a relatively rare forest type, originally covering 30 to 40 million hectares, less than 1/5 of 1% of the earth's land surface” (Weigand et al., 1992, p. 1)
- 2) Globally, coastal temperate rainforests are threatened: “over half of the forests in this ecological zone logged or converted to non-forest use” (Weigand et al., 1992, p. 13)
- 3) BC’s coastal temperate rainforests make up part of the world’s original largest contiguous rainforest zone: “The Northern Hemisphere harbors the "Amazon Basin" of temperate rain forests. Here, in North America, the largest contiguous, coastal temperate rain forest zone on Earth ranges from the Alaskan Peninsula,

south through British Columbia and Washington state to Oregon's Siuslaw River” (Weigand et al., 1992, p. 5).

4) BC has the largest expanse of undeveloped coastal temperate rainforest in the world: “The largest areas of undeveloped coastal temperate rain forests in the more productive zone of this biome exist in British Columbia” (Weigand et al., 1992, p. 1)

### ***4.3 Translation 2: Unprotected Watersheds***

The frame that Ecotrust and Conservation International applied to the coastal forests translated the forests into a new format. However, their work could not stop there. If their simultaneously scientific and political project was to be successful, they needed to enrol more elements than rain, vegetation, and geography: they also needed activists. Indeed, “coastal temperate rainforest” was not intended to be a neutral description, but a source of inspiration, a call to arms. It was meant to circulate to get people interested in the region in a way that they had not been before. But, if this was to take place, then another translation was required: one that would translate the new “biome” into terms that would interest activists. The problem now facing the scientists was not scientific controversy over how to define temperate rainforests, but the environmental activists who were too busy focusing on individual, unconnected valleys in the southern portion of the province to take notice of a giant coastal temperate rainforest to the north (Stansbury, 2000; Wilson, 1998). Activists were too busy chaining themselves to trees to see or save the rainforest. The task facing Ecotrust and Conservation International was to shift the focus of the environmental movement away from reactive battles focused on the protection of individual valleys in the south, and toward a proactive, comprehensive

conservation vision for the largest remaining intact coastal temperate rainforest to be found anywhere in the world.

This call took the form of a report commissioned by Earthlife Canada Foundation and Ecotrust/Conservation International, *An Inventory of Watersheds in the Coastal Temperate Forests of British Columbia* (Moore, 1991). In the preface to the report, John Broadhead – a well-known BC environmentalist – writes:

To date, British Columbia has confronted the issue [of wilderness conservation] on a piecemeal basis ... watershed by watershed ... jobs versus the environment and “the last unlogged watershed.” This paper is provided for those who are calling for a different approach – for a comprehensive land use strategy [...] (Moore, 1991, p. 2)

To help facilitate a new direction and focus for the BC wilderness movement, the author of the report, Keith Moore, translated the coastal temperate rainforest into terms likely to interest BC’s environmental movement. As Moore (1991) notes in the introduction to the report, “in recent years, many of the conservation efforts in the coastal temperate forests of British Columbia have focused on the need to preserve entire, intact watersheds” (p. 4). This statement at once recognizes the efforts of the BC conservation movement and the focus of this movement on valleys or watersheds as primary units for conservation, and places these efforts and watersheds in the context of “coastal temperate forests.” Thus, Moore translated the coastal temperate forest into terms that environmentalists are familiar with – watersheds – while at the same time shifting environmentalists’ focus “away from the ‘last unlogged watershed’ syndrome” (Moore, 1991, p. 4) and toward a comprehensive focus on an entire forest type.

Toward this dual end, Moore’s report sought to answer a number of questions:

- How many undeveloped watersheds remain in the coastal temperate forest of BC?
- Where are they?
- What size are they?
- How many watersheds are presently protected and where and how large are they?
- What ecological units do these protected watersheds, and the remaining undeveloped watersheds, represent?

Like Weigand, Moore was forced to begin with a definition of the coastal temperate rainforest. In a manner that aligns his definition with Weigand's but is more adapted to the specific context in BC, Moore defined the temperate rainforest as a forest existing within the "Coastal Western Hemlock (CWH) and Coastal Douglas-Fir (CDF) biogeoclimatic zones, as described by the Biogeoclimatic Ecosystem Classification system" (p. 7). The Biogeoclimatic Ecosystem Classification system was developed in the Department of Botany at the University of British Columbia in the 1960s and 1970s and adopted by the Ministry of Forests in 1976.

Next, having defined the "areal extent of the coastal temperate forest" (Moore, 1992, p. 8), Moore proceeded to mobilize the forest from within, translating it into watersheds. Moore strengthened the case for using the watershed as "the most logical unit to consider for the conservation of representative ecological units" (Moore, p. 4) by invoking other actors, including public conservation groups, parks system planners, researchers in biological processes, and conservation professionals. These groups, he notes, argue that watersheds are representative of their ecosystems, are large enough to prevent fragmentation of wildlife habitat, and can preserve recreational and wilderness values (Moore, p. 4). He then defined a watershed as including "all the land area draining into a stream system that has its terminus in salt water. It is a complete drainage

area from salt water to height of land, including all the tributary drainage areas of the main stream” (Moore, p. 5).

To identify watersheds, Moore used the BC Ministry of Environment’s “Watershed Coding System,” as well as existing maps that identified watersheds on Vancouver Island and the Queen Charlotte Islands. The goal was to identify watersheds over 5,000 hectares in size, a number somewhat arbitrarily chosen but matching with the Wilderness Advisory Committee’s suggestion that 5,000 ha is “the minimum appropriate size for an area to be considered wilderness” (Moore, 1992, p. 4). Thus, instead of beginning with the “global context” as did Ecotrust, Moore begins with the local by drawing on systems and classifications made in BC, identifying watersheds, and working in the larger context. Through these methods, Moore identified over 600 watersheds that possibly exceeded 5,000 ha. By drawing them on maps and measuring their area with a planimeter – an instrument that measures area of an arbitrary two-dimensional shape – he identified 354 watersheds over 5,000 ha in size (a small number were determined from other sources).

Moore then crosscut these watersheds with information about development status and protected status. With respect to development status, Moore conducted interviews with Ministry of Forests staff to determine whether and to what extent logging activity had taken place within each watershed. He then verified these interviews with air photos and detailed forest cover maps. Where evidence of limited industrial activity (logging roads, powerlines, pipelines, mining, settlements) was found, Moore measured the extent on the photos and maps. With this information, he defined watersheds as “pristine” (having less virtually no, i.e. less than 5 ha, evidence of industrial activities), “modified”

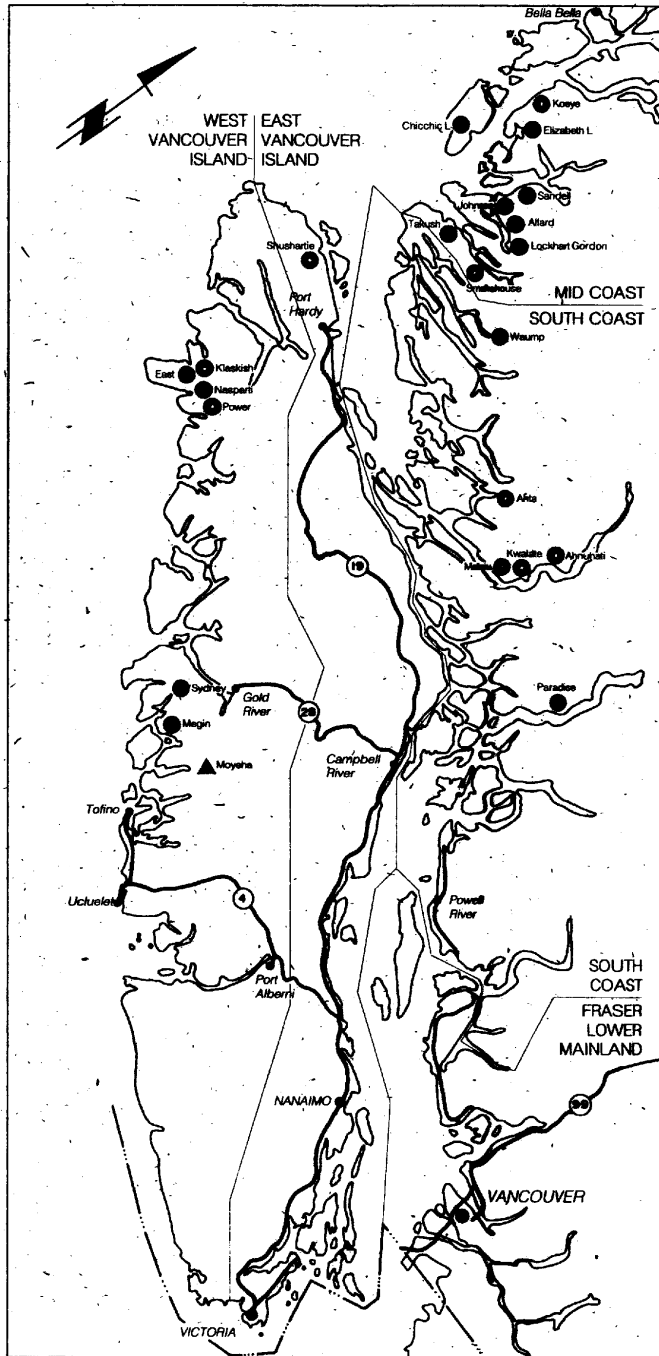
(having less than 2% of the total area affected by industrial activities), and “developed” (having more than 2% of the total area affected by industrial activities). With respect to protected status, Moore drew the boundaries of protected areas on his maps to determine whether and the extent to which watersheds were encompassed by protected area boundaries.

The result was a report, map, and table that identified watersheds larger than 5,000 ha and included information about development status and protected status (see *Figures 3 and 4*). The report translated the coastal forest into 354 watersheds, 236 (67%) of which were developed, and 118 (33%) of which were either pristine (72 or 20%) or modified (46 or 13%). Of the 354 watersheds, only 9 were fully protected and only 6 of those were pristine (3 were modified). In other words (if modified areas can be considered conservation opportunities due to the limited extent of industrial impact) Moore’s report translated the coastal forests into over 100 conservation opportunities that could be identified as dots on a map. Most of the conservation opportunities existed north of Vancouver Island, where, in comparison with the south coast, “many more undeveloped primary watersheds remain” (Moore, 1992, p. 19). Of 174 watersheds in the southern portion of BC, only 14 were pristine or modified. By contrast, of 180 watersheds in the central and northern coasts, 104 were pristine or modified.

**Figure 2**  
**Undeveloped**  
**Primary Watersheds**  
**Larger Than 5,000 ha**  
 in the Coastal Temperate Forests  
 of British Columbia (1990)

KEY

●	Pristine
◐	Modified
▲	Protected Pristine
◑	Protected Modified



20

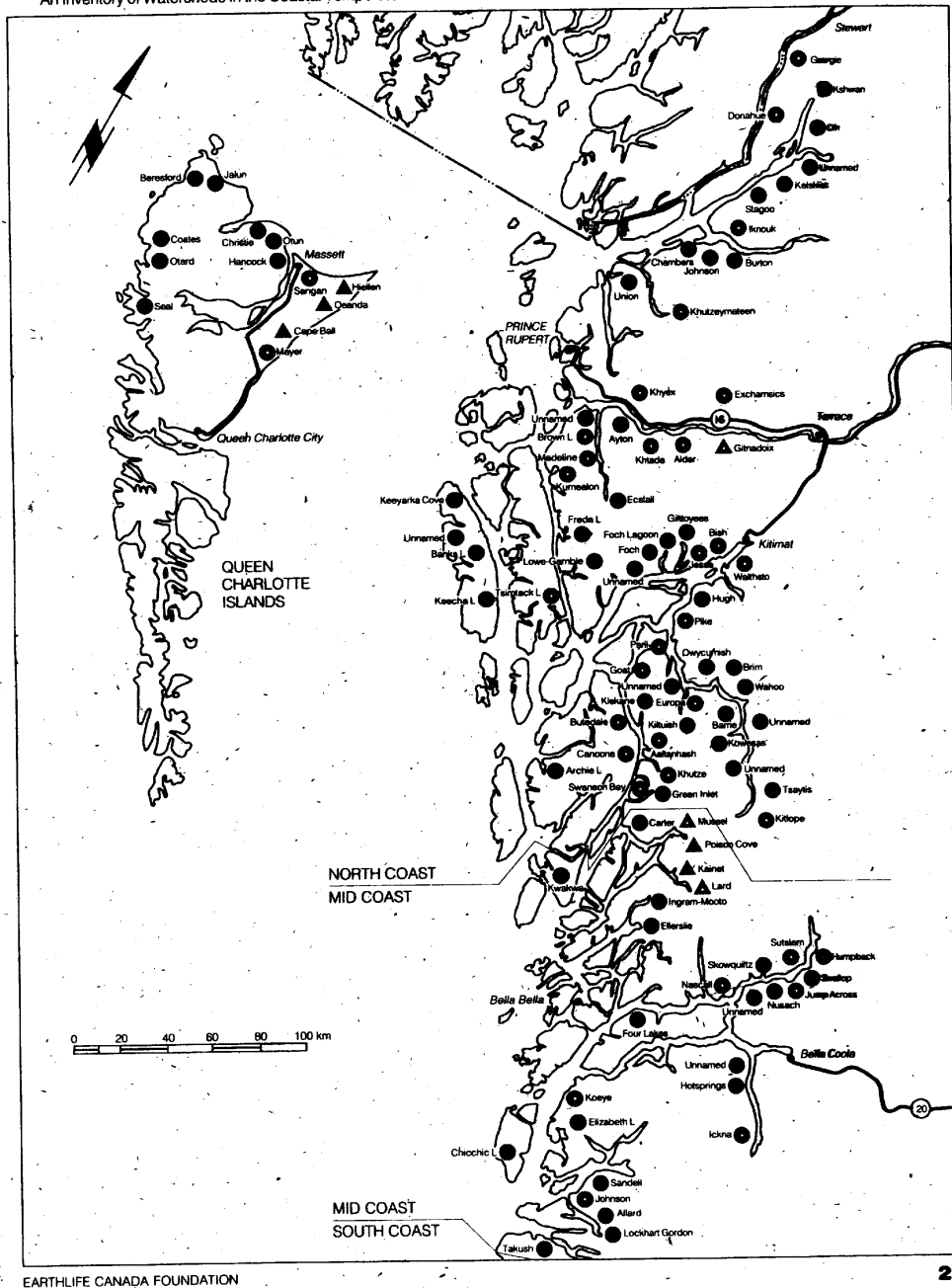
BC ENDANGERED SPACES PROJECT

**Figure 3: Coastal Watersheds, South Coast**

Source: Moore (1991). Reprinted with permission.



An Inventory of Watersheds in the Coastal Temperate Forests of British Columbia



EARTHLIFE CANADA FOUNDATION

**Figure 4: Coastal Watersheds, Mid and North Coasts**  
 Source: Moore (1991). Reprinted with permission.

These maps presented the BC environmental movement – used to fighting over individual watersheds – with a veritable smorgasbord of conservation opportunities. By comparing the south coast map with the mid and north coast map, environmentalists would be able to see at a glance that, by far, greater conservation opportunities existed to the north than to the south. Moreover, a paired essay by Ecotrust and Conservation International (Beebe et al., 1991) links these individual conservation opportunities back into the “global context” of the coastal temperate rainforest. As the authors write:

While the biota and productivity values in these watersheds are unique and in some cases exceptional, their ecosystem characteristics are nonetheless similar to the coastal forests of Chile, southern Norway, and Tasmania. (Beebe et al., p. 37)

These ecosystem characteristics are, of course, those that qualify BC’s coastal watersheds as belonging to the “coastal temperate rainforest.” Their essay, entitled, “The Coastal Temperate Rain Forest: An Ecosystem Management Perspective,” offers descriptions of this forest type’s rarity, threatened status, and remaining extent. On this basis, the authors conclude, “British Columbia occupies a position of central, indeed global importance” (Beebe et al., p. 37).

Here the coastal temperate forest zone blankets 6.5 million hectares over the full length of the coastline. It contains a wide variety of local forest types within the Coastal Western Hemlock and Coastal Douglas fir biogeoclimatic zones. And in marked contrast to the US, significant opportunities still remain to protect large, unlogged and highly productive coastal watersheds [...] These [watersheds] represent an important conservation opportunity – not just for BC and Canada, but for the world as a whole. (Beebe et al., p. 37)

A great deal of work went into translating the coastal temperate rainforest into terms that might interest activists. Biogeoclimatic classification schemes, a planimeter, interviews with MoF personnel, air photographs, and maps – all of these forms were applied to the central and north coasts to translate them into irresistible dots on a map. Was it successful? The Western Canada Wilderness Committee (WCWC) first indicated interest in this report. The Committee used one of its “educational reports” (WCWC, 1992) to promote the idea of the BC coastal “temperate rainforest,” circulating the political potential of the coastal temperate rainforest and its watersheds to a wider audience.

When most people think about rainforests, they imagine steamy hot tropical jungles of South and Central America, Asia and Africa. But rainforests—lush forests that grow where precipitation is at least 2000 mm (over 6 feet) and is spread out relatively evenly over most of the year, are also found in temperate regions of the world. Temperate rainforests grow along a thin band of land where moist ocean air collides with coastal mountains. (WCWC, 1992)

The report repeats many of the same points made in Beebe and Wolfe’s (1991) essay, and provides details on Moore’s report, including advice on how to read his tables. The report notes a few characteristics of the temperate rainforest, its rarity as a global forest type, that temperate rainforests have been greatly diminished in extent, and that BC provides the best conservation opportunity for temperate rainforests: “Only one third of BC’s primary temperate watersheds are still wild. We have a responsibility to all inhabitants of this planet, present and future, to set aside self-sustaining areas of temperate rainforest as wilderness, forever” (WCWC, 1992).

Within this wide-angle zoom, the report then moves on to provide details on opportunities to preserve particular coastal watersheds. The report notes “in the southern-most regions of the coast, we have already lost the chance to protect whole, undeveloped watersheds over 5,000 ha in size. Only fragmented watersheds remain” (WCWC, 1992). By contrast,

most of the remaining undeveloped watersheds in coastal BC are located in the North Coast region. Here there is the opportunity to create a huge protected area which extends from the coastal divide, and Tweedsmuir Park, all the way south to Fiordland Recreation Area (which must be upgraded to class A park) and the ocean. (WCWC, 1992)

Thus, the chain constructing the scientific and political reality of the “coastal temperate rainforest” became a little longer. Through the mediation of a watershed inventory, a local, grass-roots environmental group induced its members to shift their focus from the southern part of the province, where “only fragmented watersheds remain,” to the north coast region where there exists an “opportunity to create a huge protected area.” As they note, the impetus to create this protected area derives from a “responsibility to all inhabitants of this planet.” This goal brings together international environmental organizations (Conservation International and Ecotrust) – with their focus on a “global” forest type – and a local grassroots environmental group – with its focus on specific, local watersheds, which, nevertheless, are of interest to the entire “planet.” Is the effort global or local? Neither; rather, there is a single chain connecting all of the actors. If you look at any one link in the chain – Moore’s planimeter, Weigand’s working definition, the Ministry of Forestry’s biogeoclimatic classification system, Broadhead’s appeal, or WCWC’s educational report – you do not find global or local, you just find a

link in a chain. Start removing links, and the “global context” of the coastal temperate rainforest becomes just an idea that is not connected to anybody, while WCWC’s members continue to focus on the “last unlogged watersheds” of the southern coast. But link them together and “local” things in many locations start to become connected with one another.

#### **4.4 Translation 3: Stories and Images**

If one of the central claims circulated about BC’s central and north coasts was that together they comprised a coastal temperate rainforest, another was that this forest was a place full of life and beauty. It was not simply a stockpile of resources – a “timber supply area” – but contained “lush rainforest valleys [that are] are home to some of the oldest and biggest trees on earth and provide critical refuge for grizzly bears, salmon and a rare snow-white variation of the black bear called the 'Kermode' or 'Spirit' bear” (Greenpeace, 1997d). As noted by one environmentalist, one of the most significant victories was getting people to recognize the central and north coasts as the “Great Bear Rainforest”: “In 1996, when we started on this work, this area was known as the mid coast timber supply area, and the only value of this rainforest was dollars per cubic meter. Today, the Great Bear Rainforest is valued as an ecological legacy” (Merran Smith, 2006). Where did *this* claim come from?

There is a tendency among sociologists to treat scientific and cultural claims separately (Callon, 1986). Associated with this tendency is the view that science accesses the facts of nature – there whether we like them or not – while culture freely

constructs meanings and symbols. While sociological analyses of scientific claims are thereby generally restricted to examining their social context – analyzing how economic, political, and ideological forces influence choice of research topics, for example, while leaving the content of the research unexamined – no such constraints exist for the study of culture. As such, sociologists are free to study the “cultural logic,” or the “sets of institutionalized beliefs, practices and mythologies” (Rossiter, 2004, p. 141) behind environmentalists’ claims about nature. According to this perspective, we could analyze Ian and Karen McAllister’s 1997 coffee table book, *The Great Bear Rainforest*, laced as it is with gorgeous photographs and evocative prose, for the ways in which it visually and discursively constructs the “Great Bear Rainforest” as a set of meanings that are imposed onto the landscape. For example, the McAllisters (1997) write:

We never tire of watching [grizzly bears], because each bear has a unique personality and because their relationship with the forest is so uncanny. At first the bears’ massive bulk and heavy armament seem out of place in an environment so soft and spongelike, but the grace with which the huge creatures disport themselves among all this fragile complexity is a virtuoso performance that we can’t stop applauding. Sometimes on busy bear trails we find clumps of untouched wildflowers we swear they must be stepping around deliberately. Elsewhere, bears searching for root plants have ripped up estuary soils like bulldozers – which couldn’t be better for the estuary. It is this multi-faceted relationship between the bear and the forest that we have found our most rewarding study, and if we dwell on it, it is because we find it the most profound symbol of what this ancient ecosystem is all about (pp. 25-26).

We do not have to search for very long to find the primary symbol that the authors are constructing: they explicitly point it out for us on Page 26. Grizzly bears represent the “ancient ecosystem.” They are ideal symbols, since we can relate to them (they are full of personality), we can admire them (they are beautiful, graceful performers), and we can

respect them (they carry out important roles in the ecosystem). Moreover, the bears are represented as managers and stewards of the rainforest's ecological integrity. Strong and powerful, the bears are nevertheless gentle when they need to protect the rainforest's "fragile complexity," going so far (perhaps) as "deliberately" stepping around "untouched wildflowers." Delicate and graceful, the bears nevertheless unleash their massive power where appropriate, as when they contribute to the health of estuaries by digging them up "like bulldozers." The "Great Bear," loaded with symbols and meaning, is put forward by the McAllisters as the ideal representative of the "Rainforest."

In this representation, the word seems quite removed from the world. It appears that the gap is crossed by a projection, an interpretation wherein the forests are socially constructed as the "Great Bear Rainforest." Yet, how is this representation produced? Is it merely the product of visual and discursive rhetoric? Where did these pictures and words come from? Immediately below the McAllisters' identification of bears as the "most profound" symbol of the rainforest, we find an excerpt from Ian's field notes, accompanied by a full-page picture of a bear gazing into the eyes of the reader:

*IAN'S JOURNAL:* I should have realized that the sudden flurry of gurglings and throaty cracks from the ravens above me meant that there were more life forms about than just me and the birds. Suddenly the devil's club and salmonberry bushes began to shake and I knew that within seconds huge claws would be digging into the mud of the well-worn bear trail where my gumboots were currently planted. I backed off to the side about twenty feet, trying to decide whether to run, yell, play dead or pray to God, and finally chose, out of confusion mixed with curiosity and fascination, to do nothing. I sank deep into the moss of an old spruce stump – bear spray in hand – and just watched as the big bear lumbered down the trail, nose up, and stopped in mid-stride right in front of me. We stared at each other across the sword ferns. Salmon blood stained his mouth and he seemed well fed. He did not seem alarmed at my presence. The look in his eyes when they met mine was one of gentleness, almost sentience. [...] Then the 225-kilogram bear lowered his head and passed on without even snapping a

twig, as beautiful as anything I have seen. (McAllister et al., 1997, p. 26)



***Figure 5: McAllister's "Great Bear"***

Source: McAllister & McAllister (1997). Reprinted with permission.

This excerpt places the reader on the edge of their seat. The excitement of immanent danger – foreshadowed by images of shaking bushes, huge claws, and the blood stained mouth of a big grizzly bear – serves to draw the reader into the scene and its visceral



experience. It also serves to highlight the bravery and humanity of McAllister. He willingly puts himself into dangerous situations in which, like us if we were in his position, he does not know “whether to run, yell, play dead or pray to God.” He does this to bring us the stories and experiences of a place that we would otherwise never see, a place that he selflessly is working so hard to protect. The tension set up in McAllister’s narrative is resolved in a pleasantly unexpected manner. The grizzly bear is not fierce after all, but gentle, calm and beautiful. McAllister has nothing to fear: the bear moves on, gracefully as ever, a gentle giant who won’t even snap a twig, let alone wantonly disembowel a human. Moreover, the encounter is not one of violence but of connection; a meeting of eyes and, perhaps, of minds – a meeting that the reader is invited to make by gazing into the eyes of the photographed bear who gazes back.

All of these discursive effects of McAllister’s narrative and accompanying photograph are worth analyzing. These elements construct a particular set of meanings and symbolic connections between bears and us who, in turn, are constructed as the gentle giant representatives of the rainforest. However, it is worth noting another feature of the text: it is a journal entry. It thereby refers back to a different time and place. Similarly, the photograph obviously came from somewhere. If you look closely, you can notice that the background in the photo consists of water, not forest. Additionally, given that McAllister was too busy squeezing himself into a stump in fear for his life to snap a photo of his would-be killer, this shot is obviously of a different bear. Yet, it is assembled in the text in support of Ian’s story. Moreover, other elements, from different times and places, also help construct the “Great Bear” as a representative of the “Rainforest.” For example, the McAllisters invoke claims from the science of

conservation biology that grizzly bears serve as the *indicator species* of ecosystems. As they write,

We can look at healthy grizzly populations and have confidence that the integrity of the coastal ecosystem is intact and that the 230 bird species, 68 mammals, and thousands of insects and microorganisms that make their home in the old-growth forests are also healthy. If the grizzly numbers start to go down, we can be sure that those other less visible values are declining too. This is reason enough to focus worldwide attention on these bears. (McAllister et al., 1997, p. 25)

The coffee table book is comprised of images, metaphors, and symbols, but these elements are assembled from different times and places in order to construct these representations. Where did these images and stories come from?<sup>13</sup> If we trace the history of these objects and the representations that they create, we can fill in the links in the chain connecting the coastal forests with the representation “Great Bear Rainforest” – just as I did for the “coastal temperate rainforest.” These two representations – one scientific and the other cultural – do not have to be analyzed in separate ways, but may be considered symmetrically (Callon, 1986). They are both black boxes that can be opened up if we attend to the practices through which they were assembled.

In fact, when we attend to practice, we find that the scientific chain (which was made up of a diverse mixture of data, provisional definitions, instruments, and rhetoric) is directly connected to the cultural chain (which, as I will describe below, is similarly made up of a mixture of science and politics). The McAllisters’ interest in the central and north

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<sup>13</sup> Here, I will focus on the McAllisters’ photos and stories, rather than their mobilization of science, since I have dealt with science more fully in the preceding sections and since this is the main focus of the authors themselves, who write, “we have tried to include the basic information required to understand this vast and complex area, but our main purpose has been to express our own appreciation of it” (p. 16)

coasts, just like the WCWC's, was prompted by Moore's watershed inventory.

While a lot of the Vancouver Island stuff was going on in 1989, Keith Moore was contacted by Conservation International and Earthlife Canada and, I think, Ecotrust, to do a watershed inventory of the entire BC Coast. He published that report about them, and it basically was the catalyst for our work up on the Central and North Coast of BC because it showed there was maybe half a dozen intact primary rainforest river valleys over 5,000 hectares in size on the Island, and yet, on the Central/North Coast it was just massive clusters of dots on the map showing many, many intact river systems [but] nobody was working up there at that time. [McAllister – 020]

The McAllisters took up the relay offered by Conservation International and Ecotrust's "coastal temperate rainforest" by translating Moore's watersheds into stories and images. This was not simply a matter of inventing symbols and metaphors but – just as with the coastal temperate rainforest representation – it involved the hard work of loading the world into discourse (Latour, 1999). Indeed, this work involved a fair amount of lay science, or what the McAllisters refer to as "inventory and research."

As they recount in their book, the McAllisters (1997) began to collect "as much information as we could about every dot on the map, scouting provincial and federal government offices and libraries. The information barely filled a shoebox" (p. 15). In response, they decided that they had to go out and collect information directly from the coastal forests. In an interview, Ian McAllister recounts:

We didn't know what was up there and it took a number of years just to do the basic baseline inventory and research. And I mean basic – like, we were just running from valley to valley, looking at estuaries, trying to understand the status of salmon and bears, trying to understand the basic forest cover, just having the first real look from the outside world of these river systems and it's a massive coastline. [McAllister – 021]

It is one thing to take the coast in at a glance by referring to a map produced by Weigand or Moore, but to go back to the territory to which these maps refer and fill in the dots is another. The same remoteness and ruggedness of the area that had thus far prevented large-scale forestry operations made it difficult to canvass the coast for conservation reasons. The sheer size of the coastline led to technical innovations on the part of the McAllisters, who first accessed the region by boat:

We're talking over 10,000 miles of coastline. [We were] going up and down these fiords and whatnot and your boat might only go 7, 8 knots and you can only cover so much ground in a day, so I spent a lot of time with volunteer pilots, flying up and down valleys. Like old World War II fighter pilots, like Mike Humphries [...] [W]e would spend, literally, weeks and weeks in the air. Day after day, landing in Bella Coola, and Prince Rupert, and Kitamaat, and all these places, with a video camera on the wing. And I had the door off taking pictures. [We were] going up and down the river systems and then going back and cataloguing it and beginning to put together a piece. But the more and more we did that, the more we realized that how extensive this coastline was. [McAllister – 022]

When the McAllisters visited the coast physically rather than through mediation on Moore's map, the "massive" and "extensive coastline" was impossible to see synoptically. If they were to take in more than a tiny fragment of the forest at a time, the McAllister's had to work to displace their perspective (Latour, 1999, p. 66). To do so, they enlisted the skills of a pilot trained for a war, the capabilities of a small aircraft, and the technology of video and still photographs. This displacement is not different in kind from the dislocation of perspective achieved by Conservation International and Ecotrust via their global information system technology, or by Moore via his planimeter. Rather, all three parties were forced to rely on devices to gain new perspectives on the coast which, in their absence, takes on the aspect of a "delightfully tangled up territory"

(McAllister et al., 1997, p. 44). For their part, the McAllisters were able to mobilize the coastline into a transportable format that could be reviewed during any time away from the coastline itself. By means of photographs, they could associate dots on Moore's map with visual depictions of individual valleys. By means of video, they could fast-forward, rewind, and pause on certain images of the coast as they catalogued its watersheds.

The McAllisters spent the next five years sailing up and down the coast, "ground-truthing" [McAllister – 030] the rough information they collected from the air. The couple populated Moore's watersheds with waterways, salmon streams, estuaries, plants and trees, and wolf and bear populations. Perhaps even more importantly, they collected stories and photographs (such as those reproduced above). Their coffee table book is full of these stories and images, which take the form of narrative, journal excerpts, and glossy full-page colour photographs. By the time that readers reach the end of the book, having virtually travelled with the McAllisters along the entire coast, they encounter a map listing the coast's "endangered intact watersheds," one not much different than Moore's. However, in this case, each dot has been filled in with stories and gorgeous photographs.

Having taken over the relay offered by Conservation International and Ecotrust, the McAllisters (and their environmental group, the Raincoast Conservation Society) worked to interest the BC environmental movement in the region. However, before their book was published – during their period of "research and photography" (McAllister et al., 1997, p. 16) – most wilderness advocates were engaged in a battle to save the "last untouched watersheds" of Vancouver Island's Clayoquot Sound. According to McAllister,

It was almost surreal for us to be sailing quietly up on the Central and North Coast [along] these vast intact, unprotected and threatened river valleys day after day, and then reading or listening to the news [about] the massive blockades and the huge displays of civil disobedience happening in Clayoquot Sound. In the back of our minds we're wondering, "when are people going to pay attention to this Coast?" It took a few years, for sure. [McAllister – 036]

Thus, while the coffee table book was directed towards a general audience who might be induced to support the aims of an environmental campaign, the McAllister's first task was to help "usher in" such a campaign. Largely, this involved deploying the same images and stories that would be compiled in the book. As Ian recounts: "a lot of our earlier work was really just as a messenger, getting those tools [out] – those video and still images, and stories, and introducing people to First Nations, and just trying to usher in a campaign" [McAllister – 038]. They brought the information that they collected about the area to local, national, and international environmental organizations: "we were going to Europe each winter, and we were travelling around Canada and the United States, banging on doors and trying to get people engaged in the issues and the campaigns" [McAllister – 036]

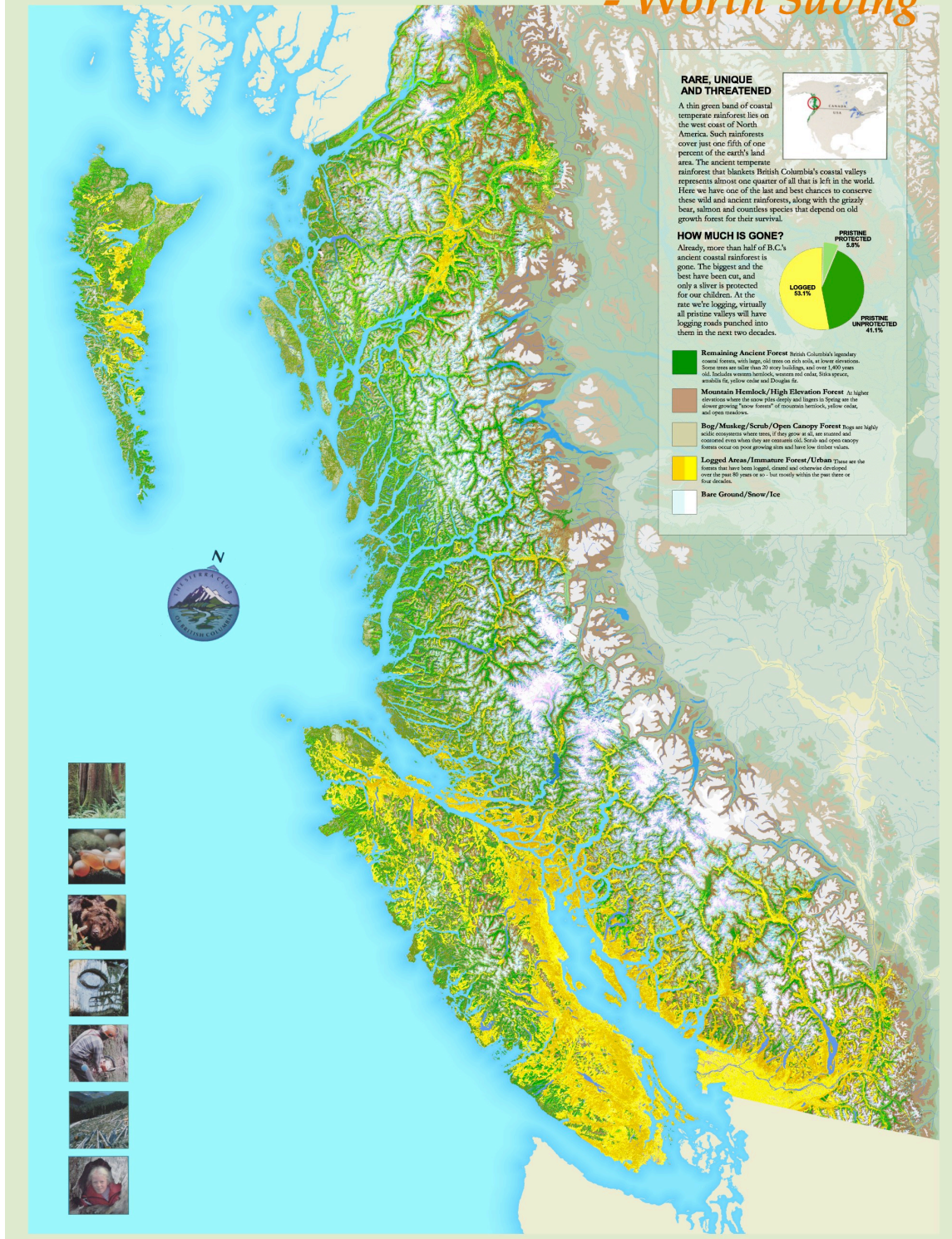
#### ***4.5 Assembling a Panorama of the Coastal Forests***

Three important translations of BC's coastal forests took place between 1990 and 1996. The place was scaled up into a coastal temperate rainforest located within a global distribution, drilled down into an inventory of unprotected watersheds, and filled out with experiences, stories and symbols. While some aspects of these translations appear to be

purely scientific and others to be purely discursive, all of the translations blended material, discursive, and collective elements. Moreover, they are connected together in a continuous chain. Rather than by nonhuman reality “out there” which scientists discover or which environmentalists misrepresent, the coastal forests were mobilized by a variety of devices and techniques in order to influence how people connect with them. Each translation created a particular depiction of the forests, connecting the latter through a single chain. Yet, these depictions were not assembled into one synoptic, total view of the forests until the Sierra Club produced a composite map of the region.

In 1996, the Sierra Club released a satellite map of coastal BC, entitled “Canada’s Rainforest – Worth Saving” (see *Figure 6*). The map is an aesthetically striking work of art, as captivating, in its own way, as McAllister’s photographs. Richly saturated aquamarines, forest greens, and un-earthly yellows draw the viewer into the glossy illustration, offering a rare and unique view on a rare and unique place. This is “Canada’s Rainforest”: large enough to extend along the entire west coast, but tiny – and therefore precious – when considered in relation to the vast size of the continent, as can be seen in the box to the right. A small panel of complementary photographs tell the larger story depicted on the larger map. A cedar tree so large the we can only see its trunk, salmon eggs viewed so closely that we cannot fail to recognize their importance, a grizzly bear so large that it fills the frame, and a First Nations carving so old that it appears part of nature itself – these representatives suggest what is “worth saving” in this rainforest. There are no people in these photographs, only plants and animals.

# CANADA'S RAINFOREST - *Worth Saving*



**Figure 6: Canada's Rainforest – Worth Saving**

Source: Sierra Club of BC (1996). Reprinted with permission.



The presence of people in the rainforest is only hinted at by the old, weathered carving – the handicraft of invisible First Nations as ancient and premodern as the giant cedar tree. The first time we see the depiction of a person it is of a logger, his back turned to us, bent toward the task of cutting down a giant tree – perhaps the tree we see in the first picture. Pull back the perspective in the next photo and we can see the larger consequences of his work: decimation, disaster – a clearcut. Whom does this impact? The innocent future generations, as the last picture suggests. The little girl, noticeably blond and white, has an obvious connection to nature and the forests, smiling innocently as she peaks out at us from within the very heart of an old tree.

These elements of the map thus represent the coastal forests in a particular way and I have given a particularly social constructionist reading of this representation. But this is a hybrid map. Other elements are present that resist reading it as a pure human construction. In the text describing the “rare, unique, and threatened” status of the rainforest, we once more encounter the claim produced by Conservation International and Ecotrust’s rainforest mapping project: the rainforest covers “just a fifth of one percent of the earth’s land surface” with BC’s portion representing “almost one quarter of all that is left in the world” (Sierra Club of BC, 1996). This scientific-political “factish,” to use Latour’s (1999a, p. 274) term for facts that have gone through traceable processes of fabrication, does its intended work by entailing that “here we have one of the best chances to conserve these wild and ancient rainforests, along with the grizzly bear, salmon and countless species that depend on old growth for their survival” (Sierra Club of BC, 1996), the latter of which we see in the photographs on the left.

Other features of the map refer to things that exceed a purely discursive reading. The most important features, of course, are the yellow and green areas. They are aesthetically striking but they also refer to things beyond the map itself. The key to this reference is given in the pie chart to the right. Yellow areas refer to areas that have been “logged,” while green areas refer to the “remaining ancient forest.” The text accompanying the chart tells us “more than half [53.1%] of B.C.’s coastal rainforest is gone” (Sierra Club of BC, 1996). If we conclude that the situation is good because we still have about 50% of the remaining forest, our feeling of comfort is quickly taken from us with the knowledge that only a “thin sliver” (see pie chart to right) “is protected for our children” (see photo to left), while what remains faces an unrelenting, violent onslaught, since “virtually all pristine valleys will have logging roads punched into them in the next two decades” (Sierra Club of BC, 1996). Were these facts and figures simply conjured up for rhetorical purposes? Are they simply transparent depictions of realities discovered by scientists? What about the view from space? Surely, this seemingly objective view is not what we would see if we were aboard the orbiting satellite.

This map is the product of a chain of circulating reference, just like Conservation International and Ecotrust’s “coastal temperate rainforest” and the McAllisters’ photographs and stories. Each element assembled in the map, from the colours, to the photographs, to the pie chart, has a history.<sup>14</sup> Indeed, the mapping project itself has a history: it is the extension of an earlier mapping project covering Vancouver Island. As

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<sup>14</sup> Or “historicity” in Latour’s (1999: 149-150) terms. Latour uses this term to contrast the notion of history associated with a correspondence theory of truth – in which facts, if they exist, have always been there, outside history while history is reserved for humans – with a recognition of the history of things – involving changes in the series of transformations constituting circulating reference.

recounted by Braun (2002, p. 215), the Sierra Club produced two maps of Vancouver Island in the early 1990s which compared the extent of forest cover in 1954 to 1990. The maps were presented as satellite images, seemingly objective snapshots of the island in two different time periods. The purpose of the maps was to visually demonstrate the extent of “the disappearing forest” on Vancouver Island (reproduced in Braun, 2002, p. 215). Yet, according to Braun (2002), the images were not simple snapshots from space: they were the outcome of a great deal of work. The images were computer-generated, with Landsat imagery (satellite photographs) forming only one source of information for the final product. Other resources included forest inventories produced by the Ministry of Forests, “vegetation zone” categories produced by biogeographers and represented in maps of biogeoclimatic units, and colour schemes introduced by cartographers. These sources were digitally combined with one another to produce the final image. Thus, according to Braun (2002):

The images combined and translated material from multiple sources (satellite photographs, biogeoclimatic maps, forest inventories, air photographs), mixed these with the skills of technicians (photographers, computer programmers, cartographers), relied on the competencies of various instruments (computers, software, satellite technologies, cameras, printers), and drew on a set of guiding metaphors and concepts from sciences such as ecology. (p. 223)

The result of this hard work was a new actor: “reproduced in pamphlets, hung on walls, shown at rallies, and reproduced in the pages of newspapers and magazines, it [the map] helped to fuel a global campaign to save the ‘ancient rainforests’ of Vancouver Island” (Braun, 2002, p. 222). Similarly, the Sierra Club’s “Canada’s Rainforest” map became an important actor, inasmuch as it helped “usher in” a campaign for BC’s central

and north coasts. The map served to draw environmentalists' attention to the coastal forests lying to the north of their most recent battles. As the map made apparent, wilderness advocates had previously focused their efforts on protecting tiny pockets of green in an expanding sea of yellow in the southern half of the province. Their successes were thus best viewed as small green wins in a wider yellow failure. By contrast, the map directed environmentalists' attention to an area where it would be more effective: the north. According to the Club, the map:

    Showed the extent of rainforest destruction on Vancouver Island, along B.C.'s south coast and its gradual extension northwards up the coast. It also highlighted the extensive intact areas that could still be saved in the Central and North Coast. For the first time, British Columbians could clearly see how much of the rainforest was gone, and what remained. (Sierra, 2008)

Indeed, this was the first time that viewers could "see" the rainforest and its extent in coastal BC. The map presented a panoramic view of the central and north coast, one that situated the coasts in relation to Canada, the world, future generations, forestry, animals, and the concerned viewer. But, as described above, this was not an unmediated, objective vision; nor was it merely a representation with no connection to the reality beyond the text. The visual depiction was an achievement produced through the assemblage – through chains of translations – of many different types of things, thus offering viewers a synoptic "God's eye view" of forest cover data, ecological classifications, historical and contemporary logging practices, future generations, "ancient" metaphors, trees, bears, and salmon, and geography. Much work went into the production of a map reproducible on a single, and thus highly transportable, piece of

paper. This composite but single actor-network helped environmentalists “see” where they should focus their efforts.

A panorama is a kind of projection, a representation of a world or state of affairs. It provides a total view. It does not provide a transparent representation of the world as it is in itself. But this is not to say that it is merely socially constructed. Rather, as I have detailed in this chapter, the construction of a panorama is a material undertaking as much as it is a discursive one. Environmental politics applies to the assemblage of heterogeneous networks such as these. Only if we ignore all the hard work in constructing this panorama can we conceive of a material reality “out there” over which politics is engaged in “in here.” Rather, environmental politics involves the chaining of elements such as rain, vegetation, watersheds, experiences, stories, and people into a new quasi-object – “Canada’s Rainforest” – and a new quasi-subject<sup>15</sup> – the viewer who believes that it is “worth saving.” Moreover, the point of constructing such panoramas is not to transparently depict the world as it is in itself, but to induce others to act in particular ways. It becomes a practical means of creating new associations. Thus, care must be taken in the representation of the panoramas themselves – if they are to induce interest, they must be made interesting.

Sierra’s satellite map is visually compelling, yet, what viewers could see as obvious was still rather formless: “It became obvious there was this huge green blob. In fact, we used to call it the ‘Big Green Blob’ before it was called the ‘Great Bear Rainforest.’ I mean, we didn’t call it that publicly, but that’s what we called it in meetings” [E – NT: 86]. The “Big Green Blob” was open-ended and ill defined.

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<sup>15</sup> I refer to these entities with the prefix “quasi” because they are the provisional result of networks made up of humans and nonhumans.

Satellites, land use data, mapping technologies, conservation biology, attempts to influence the focus of the environmental movement – all of these things came together to create an open-ended thing. In Latour’s (2004, p. 247) terms, the “blob” was little more than a “proposition,” or an association of humans and nonhumans before it becomes recognized and instituted in a collective.<sup>16</sup> At this stage, the possibilities for what this ill-defined thing was were still open-ended.

However, the forms of thought that make up the modern constitution were at play and, while environmentalists and others worked to create this new hybrid network, they sought to prematurely purify it into nonhuman nature without proper debate, or what Latour refers to as “due process.” Ecotrust and Conservation International worked to produce a new forest type – not to connect the coastal forests more intimately with people, but to protect them *from* people. The McAllisters worked to populate the coastal watersheds with images and stories to argue for their *preservation*. WCWC popularized Moore’s watershed inventory and the concept of the coastal temperate rainforest to promote the idea of creating a giant park *off limits* to development. The Sierra Club produced its map to help people see that Canada has a rainforest and that it is “worth *saving*.” Indeed, while the processes involved in the above endeavours associated heterogeneous materials in novel formations, these realities were purified to present a wilderness that had to be protected from people.

These practices of purification are evident in the first name given for this “Big Green Blob”: McAllister referred to it as the “Great Bear Wilderness.” The term “wilderness,” as numerous scholars have pointed out (e.g. Cronon, 1996b), presents a

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<sup>16</sup> I will discuss the concept of proposition more fully in Chapter 3 in connection with “ecosystem-based management.”

view of nature as nonhuman. However, this purification was resisted even at this stage.

As McAllister notes,

If you look at our original conservation [proposal] for the Coast, it was called the “Great Bear Wilderness,” but we actually got a fair amount of push back from First Nations. You know, you read the Webster’s Dictionary and its definition of “wilderness” is actually quite clear, it says that it’s void of humans, right? [...] [McAllister – 56-60]

First Nations, as we will see in Chapter 5, resisted definitions of “wilderness” that excluded their cultural, jurisdictional, and economic interests, “so it [the name] got changed to the ‘Great Bear Rainforest.’” The name-change took place at a meeting between the McAllisters and a Greenpeace representative in a restaurant in San Francisco in 1996:

I still have distinct memories of Karen [McAllister], Ian McAllister and myself [Tzeporah Berman] sitting in a restaurant in San Francisco in 1996 writing on a paper tablecloth – Great Bear Wilderness? Raincoast Wilderness? Northern Rainforest? Coastal Rainforest Wilderness? And the moment when we wrote Great Bear Rainforest. We all knew immediately that was it. And we were damn sure that Great Bear Rainforest was going to solicit more concern than the “mid coast timber supply area,” which is what the region was known to us up until we launched the campaign. (Berman, 2006a)

The name “Great Bear Rainforest” is, as with any name, a representation. Its “words” refer to the “world.” Yet, as we have seen above, the world is “loaded into” discourse (Latour, 1999a, p. 24). In one sense, the name was “dreamed up” by three people sitting in a restaurant. However, the words chosen were not empty signifiers that could be freely loaded with a “cultural logic.” Rather, the words were already dense with signification.

The term “Great Bear” refers to the “profound symbol” of the grizzly bear, which, as the McAllisters (1997) note in their book, is a natural representative of the forests due both to its gentle yet industrious role in their functioning, and to its ability to function as an *umbrella species* within the science of conservation biology. However, the “Great Bear” serves as an umbrella of its own, encompassing not only grizzlies but the Kermode or “spirit bear,” for whom the most significant conservation proposal in the region (the “Spirit Bear Conservancy”) existed at the time of the campaign. Both bears were loaded into the name – not only as discursive symbols, but also as representatives of ecosystem integrity and as an existing conservation proposal. Nonetheless, as “charismatic megafauna” (Leader-Williams et al., 2000), they served well as “poster icons” (McCrary, 2003) for the campaign. The term “Rainforest,” as analyzed above, is simultaneously scientific and political: a subdivision of a previously recognized forest type that links up with existing international concern over tropical rainforests. Linking these two terms together, the name “Great Bear Rainforest” is at once rich with meaning, dense with reference, and the product of relations of power.

This gave the region a particular kind of figuration, which gave it a personality in its own right (Latour, 2005b). As one newspaper commentator noted, “a nondescript and emotionally neutral region of British Columbia known as the central and north coast timber supply area entered the public's imagination as a personality worthy of ecological recognition” (Gigg, 2006). The GBR was not already out there waiting to be discovered by scientists, but was merely “nondescript.” Neither was it a blank screen waiting for a discursive representation to be projected onto it; it was merely “emotionally neutral.” But afterwards, through the processes of circulating reference that involved working



definitions, devices such as planimeters, machines such as satellites, metaphors such as “rainforest,” stories, and photographs, the coasts came to possess a “personality worthy of ecological recognition.” The next step was to (1) articulate the GBR in a manner that would enable it to be “recognized” in a specifically “ecological” way, and (2) introduce this “personality” into wider networks in order to solicit concern and enrol other groups in the project of recognizing the GBR.

## **5 Generating Power: Spokespeople, Interestment and the Market Campaign**

In the previous chapter, I examined how environmentalists problematized the central and north coasts, transforming them into a reality that could be made to interest others. Specifically, I traced chains of associations that translated the coastal forests into a new form – the “Great Bear Rainforest.” While the last stage of this process involved the production of a new name, this process was not simply about the power of naming, but about simultaneously material, discursive, and collective practices that sought to transform the forests into an evocative, scientifically-defensible conservation opportunity that would be of interest to environmentalists. The original name given to this new network – the “Great Bear Wilderness” – attempted to purify and prematurely close off debate on the area by representing it as nonhuman nature. However, First Nations contested this representation, indicating that they would have a role in defining what the area would become.

The revised name – the “Great Bear Rainforest” – presents a panoramic vision of the coastal forests, a total view that connects the forests to the globe, to animals, to future generations, and to viewers who agree that it is “worth saving.” It presents a vision of the future wherein these relations would be realized; thus, while it does not transparently depict the world as it is in itself, it usefully previews the world to come (Latour, 2005b, p. 189). The protection of “Canada’s Rainforest” cannot happen in the panorama itself since it remains only a picture of what is to be achieved. More work – and more translations – was required to achieve this end.

In this chapter, I examine the ways in which environmentalists worked to define the identities and interests of groups that they needed to achieve their vision, and the “interestment” devices environmentalists deployed to enrol allies into their network. This analysis looks at environmentalists’ attempts to enrol the BC wilderness preservation movement, First Nations, nonhumans, and forestry companies into their vision of the forest. I look at how the wilderness movement was redefined as a coalition interested in comprehensive, rather than *valley-by-valley*, conservation through the mediation of personal growth and healing. Specifically, I look at the formation of the Canadian Rainforest Network (CRN) subsequent to a retreat designed to address activism burnout. The analysis of attempts to enrol First Nations is more implicit. I show how First Nations’ rejection of environmentalists’ attempts to act on their behalf involved an implicit definition of First Nations’ interests as synonymous with environmentalists’ interest in environmental protection. The interests of environmentalists and First Nations did indeed overlap, but were by no means synonymous. Moreover, I look at environmentalists’ attempt to enrol First Nations in their campaigns through standing together with First Nations in blockades in Nuxalk territory and blockades in Kitasoo territory. Again, I find that this attempt at interestment was uneven, with some First Nations travelling to Europe with environmental activists but many others rejecting environmentalists as modern day colonialists.

I also investigate how environmentalists defined nonhumans and the means by which they attempted to enrol them into the emerging network. In particular, I look at how the “problematized” panoramic vision of the central and north coasts was given voice through the designation of an authorized spokesperson for the forests and their

inhabitants. Who better to represent the Great Bear Rainforest than the Great Bear itself? But how can a bear “speak” for others? Nonhumans obviously do not speak in the ways that humans speak, and the reader will note that I do not include any direct quotations from bears. However, in this dissertation, I do not consider speech to be a capacity that is “held” by some types of beings. Rather, I consider speech to be a process or event in which multiple types of beings participate. Specifically, I look at how the bear was produced as a hybrid actor in relation to the science of conservation biology. In particular, I look at how conservation biologists applied the concepts of the *course filter* and *umbrella species* to authorize the bear to speak for others in the emerging network.

I analyze how this bear was made to circulate along with environmental activists during their campaign to protect the GBR. The point of this analysis is to examine in detail how environmentalists placed themselves and the nonhuman inhabitants of the central and north coasts in between forestry companies and their main allies – their customers – in order to take away their power and draw them into environmentalists’ network. The study of this process of interestment is a study of power. Just as with the concept of speech, I do not consider power to be “held” by any particular group. Rather, I study how it is an effect of its distribution across networks. I am aided in this analysis by environmental activists themselves who worked to trace the networks making up the forestry industry. While analysts of BC forestry politics have described the economic power held by forestry companies, suggesting that it can only be counteracted with similarly large powers such as public concern (Marchak, 1983; Wilson, 1998; Hayter, 2000), environmental activists rendered the networks constituting forestry industry’s power explicit by tracing the commodity chain linking them to their retail customers. In

Latour's (2005b) terms, environmentalists traced an "oligopticon" (p. 175). Latour uses this term to contrast it with Foucault's (1977) idea of the "panopticon" or a form of power in which everything is seen from nowhere. By contrast, the *oligopticon* is not everywhere at once, but located in a specific place, such as an office or a business. The power connected to oligoptica is generated by their multiple connections, rather than by their possession of large social forces. Moreover, since it is the networks that generate power for oligoptica, intervening in networks can challenge this power. As I detail in this chapter, this is exactly what environmentalists did.

In both cases – creating a spokesperson and deploying the spokesperson to enrol allies – I note the workings of the modern constitution. As they developed spokespersons and traced the commodity chain, environmentalists and conservation biologists worked together to create new hybrid networks. However, they also attempted to sever these networks into nature and society. It is only in Chapter 6, when I discuss how ENGOS began to negotiate with forestry companies – that we see a shift in approach from the modern constitution to the collective. Nevertheless, just as with First Nations' "push back" noted in Chapter 4, this chapter notes some elements that were put in place to help prompt the shift.

Before I move on to examine the production of spokespersons and the tracing of oligoptica, I will describe the new coalition that was convened to do the work – the Canadian Rainforest Network. This coalition is noteworthy for two reasons: first, it represents a victory for those who attempted to convene a new social group to save the GBR, even though this came at the cost of a translation. In particular, while the original goal was to work for the establishment of a giant protected area covering the central and

north coasts, the coalition included elements that focused on the plight of people and economies as much as nonhumans. While this element did not come out until later when the coalition exploded due to internal conflict, it was significant that it was in there from the beginning. Second, the coalition rejected a government-sponsored land and resource management planning process that putatively took into account the interests of multiple stakeholders. It was therefore instrumental in paving the way for alternative approaches to reconciling interests in the coastal forests, processes investigated in Chapters 6 and 7.

## ***5.1 The Canadian Rainforest Network***

By 1996, several environmental organizations had become interested in BC's central and north coasts: the McAllisters' Raincoast Conservation Society, the BC Chapter of the Sierra Club, Greenpeace (which had recently established its Ancient Forests Campaign headquarters in Vancouver), the Western Canada Wilderness Committee, and McCrory's Valhalla Wilderness Society. Other groups also became interested in the region. For example, the Forest Action Network (FAN) – a grassroots, direct action group – established an office in Bella Coola, the heart of the central coast, to support the Nuxalk Nation in its 1995 blockades of the BC logging company International Forest Products (Interfor) on nearby King Island. However, if a concerted campaign to protect the GBR was to take place, then these different groups needed to be brought together.

Interestingly enough, these groups were united not only by their desire to protect the central and north coasts but also by the mediation of personal growth and spirituality.

In 1996, BC Wild convened an “activist training program” consisting of a number of workshops at the Hollyhock Centre focused on helping activists in the wilderness preservation movement deal with issues of “burn out.” According to an environmentalist involved in convening these workshops [E - KI1: 032], the Hollyhock Centre is “a personal development retreat centre, basically, like that kind of what it does. It’s all about building personal mastery and personal consciousness and it’s spiritual.” While the goal of the workshops was to help activists who were “just flaming and burning [out] all over the place,” they originally produced a “huge culture clash,” since, in the view of this environmentalist, most activists were “basically about ‘get out there in the world and fucking save the planet and we could care less about crystal fucking, that’s not what it’s about.’” However, the workshops were eventually able to induce a transformation in the activists: “we’re kind of doing this meshing of the spiritual level with the activism piece and gradually it’s getting less and less hard to sell that message internally in the movement.” The message was one of “compassion, and [focused] on the idea of a larger unifying force and all of those kinds of things.” Moreover, the workshops provided a venue in which the different groups could develop a common approach to their coastal work: “the group of people who were working on this particular campaign are not only coming here for training, but then they’re also having strategy sessions here, and they’re starting to do a bunch of work here, just around idea development” [E - KI1: 032].

A coalition formed out of these meetings, termed the Canadian Rainforest Network. The alliance involved a mixture of twenty small and large, Canadian and American, and radical and moderate groups. The groups differed in their goals, with

some calling for outright protection of the entire area and others focused on protecting some areas while recognizing that a forest economy would continue:

The Canadian Rainforest Network was the “who’s who” of everybody and it was like sixteen or eighteen groups of people who were all working up and down the Coast. And it was hell, it was like every megalomaniac you’ve ever met or understood in the world, they were all in the room, and they all had their own ideas about what had to happen, and the spectrum went from the complete idealist who said, “Reject it all, not a single other tree can come down,” to the people who were going, “Okay we’ve got to phase out clear cutting gradually and now we’ll protect some of it.” And, you know - the incrementalists vs. the idealists – and that tension was just palpable in the room, and we spent most of our time fighting. [E - KI1: 004]

Like WCWC’s suggestion in their 1992 Educational Report, some argued, “the whole thing should be protected” (Hamilton, 1996). However, others suggested that economic well-being would have to be considered: “We would like to see as much of this area protected as possible,” said Vicky Husband, the Sierra Club of B.C.’s moderate leader, “but we recognize there have to be economic opportunities” (as cited in Luke, 1996). Indeed, a new approach that went beyond simple protection seems to have been the official focus of the group. As quoted by Gay (2001), the CRN was convened to promote ““fundamental changes in the way British Columbians approach both forestry and forest protection,’ developing conservation strategies that ‘will ensure the continued ecological integrity of BC’s rainforest *and the communities that depend on it*”” (p. 136, emphasis added).

Thus, the original goal of Conservation International and Ecotrust to shift the focus of BC’s wilderness preservation movement away from the valley-by-valley



struggles characteristic of the “last unlogged watershed syndrome” was largely successful. As noted by the CRN coordinator, Jill Thomas:

The idea of doing a valley-by-valley fight on the mainland coast is impossible to contemplate [...] There are 60 valleys. But it's time to move beyond that anyway. When we fight valley-by-valley we end up with fragmented valleys here, there and everywhere. This is quite a major paradigm shift for the environmental movement. (Hamilton, 1996)

Yet, this shift came at the price of another shift. There was at this point a slight shift from the goal of creating a huge protected area to an alternative conservation vision. Latour (1991) notes, “a statement...is in the hands of others” (p. 105). In other words, a statement travels through a chain of speakers, each of whom transforms the statement in some way before passing it along.<sup>17</sup> Conservation International and Ecotrust said *coastal temperate rainforest*, Moore said *over 100 unprotected watersheds*, WCWC said *huge park*, the McAllister’s and Berman said *Great Bear Rainforest*, Hollyhock said *compassion*, and now the CRN was saying *paradigm change* and *ecological protection*, *forestry practices*, *First Nations’ rights* and *economic development*. The original statement (which, as I described in the last chapter, was derived from multiple material and discursive practices) was passed along but changed form as more “hands” touched it. The broader emphasis that it gained – something that I will explore more fully in the next chapter – is already seen in the CRN list of overarching goals (Econews, 1996):

- Protecting critical ecological areas

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<sup>17</sup> A statement, according to Latour (1991, p. 151), does not refer only to language; rather a statement can refer to “a word, sometimes to a sentence, sometimes to an object, sometimes to an apparatus, and sometimes to an institution.”

- Stopping all clearcutting in coastal temperate rainforests
- Limiting road construction in pristine areas
- Supporting First Nations struggles to protect traditional territories, and
- Promoting sustainable community economic development

This list of goals was not uncontested and internal disagreements eventually led to the demise of the CRN. However, while it held together, the alliance worked very hard to make these goals a reality. Obviously, the CRN was not initially in a position where it could dictate land use policy for the Province: a list of goals was not enough. According to one environmentalist

you need to generate power [...] if you don't have power, you will just be considered some side input and they will, you know, monkey-wrench around the edges to shift, to try to appease you, but if you don't have power, you can't fundamentally alter the system. [E – NT: 318]

How did ENGOs generate power in order to fundamentally alter the system? According to writers such as Marchak (1983), Wilson (1998) and Hayter (2000, 2003), economic and political structures combined to consolidate and centralize control over BC's forests in the hands of a "development coalition" or "government-forest industry compact" (Wilson, 1998, p. 81). In their analyses, this power could only be countered by an equal or greater power, such as the "powerful imperatives [of] neoliberalism, aboriginalism, and environmentalism" (Hayter, 2003, p. 707). Similarly, in Wilson's (1998) terms, industry's economic power could only be countered if environmentalists were able to "mobilize sufficient political resources to neutralize these advantages and push their issues onto the agenda." In other words, only the power of social structures can combat the power of social structures.

However, as Latour (2005b) argues, “if there is no way to inspect and decompose the contents of social forces, if they remain unexplained or overpowering, then there is not much that can be done” (p. 252). In other words, if the power of the forestry industry is explained simply as the product of economic forces such as capitalism, the best that environmentalists can do is hope that other existing gigantic forces – such as Science or social movements – can be invoked in opposition. However, if you choose to isolate one of the features of the network and then abstract it as the power of the market, of science, of economic resources, or of images, then not only will you have an impoverished explanation, but a tautological one. By contrast, a more pragmatic approach to power is to recognize that “only a skein of weak ties, of constructed, artificial, assignable, and surprising connections is the only way to begin contemplating any kind of fight” (Latour, 2005, p. 252). Or, in the words of John Law (1992):

If we want to understand the mechanics of power and organization it is important not to start out assuming whatever we wish to explain. For instance, it is a good idea not to take it for granted that there is a macrosocial system on the one hand, and bits and pieces of derivative microsocial detail on the other. (p. 2)

In contrast to the idea that power is centred and total, in the following I analyze power as a product of networks. In the case of the environmentalists’ campaign, this took the form of their ability to use their status as representative of one network (the environment) to attack and intervene in another (the commodity chain). As one interviewee notes, the

thing that the companies had to grapple with was that, you know, you needed to understand who had power and why they had it. And you needed to understand, look it, the environmental groups have power. Why do they have it? Well, they have it because they represent the environment. [E – EK: 018]

But, what does it mean to “represent the environment”? Do environmentalists speak for the environment because it cannot speak for itself? Who has the authority to speak on behalf of the environment? In the following, I will suggest that environmentalists did not simply start speaking on behalf of the environment, but that they worked to designate a spokesperson for the rainforest – the grizzly bear – with whom they could *share* speech (Latour, 2005, p. 64). That is, they enrolled the science of conservation biology to create an intermediary position between environmentalists who spoke on behalf of the environment and the environment speaking on its own behalf.

Second, ENGOs generated power through conflict: “the Government employees all said yeah, if there wasn’t a conflict – and the conflict is what led to us having power – then they wouldn’t have heard us” [E – NT: 310]. On the one hand, building power involved a process of representing the interests of thousands of species and ecological processes of the environment in a single spokesperson. However, on the other hand, it involved processes of exposing and attacking the network constituting a seemingly single actor, the forestry industry. This, as we will see, was largely done through the commodity chain linking forestry companies to their retail customers in Europe and the US. As one environmentalist noted, “we have to get power from somewhere, and so the market campaigns can target the companies, we can get the companies to agree to stop logging” [E – NT: 090].

In the following, I show how environmentalists and the Great Bear acted together as spokespersons for the rainforest, intervening in the network of associations that connected the coastal forests to forestry companies and the retail customers of BC forest products in Europe and the US. Additionally, I show how industry and the market were traced and mapped out as oligoptica – that is, as well-connected but local sites that could be attacked at a variety of points. Finally, I show how the actors worked to create new networks of power, on the one hand, and to purify these networks into nature and society on the other.

## **5.2 Conservation Biology and Spokespersons for the Rainforest**

According to one environmentalist, the impetus to shift attention to the north was aided by conservation biology. As she notes, two studies came out simultaneously with the publication of the Sierra Club's map.

One was a study of all the National parks in Canada, which said that in every park they were losing species, except for one, and that park had been created the year before, so they couldn't monitor any species loss. The second one was the study of Western North America<sup>18</sup> and it determined that every – so, these were conservation biology studies – that every park was losing species except for the Banff-Jasper: it goes into the States, and you know, it was the only one that was big enough to actually maintain species. [E - NT: 86]

These studies, along with the Sierra Club's map, prompted some people in the environmental community to reassess their strategies: “a number of us in the

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<sup>18</sup> Newmark, W. D. (1995). Extinction of mammal populations in Western North American national parks. *Conservation Biology*, 9(3), 512-526.

environmental community sat back and said, ‘Okay, well we’re failing. Creating parks is not actually winning, it’s failing’” [E – NT: 86]. The ‘Big Green Blob’ on the map allowed environmentalists to see an entirely new kind of conservation opportunity for BC, one built on the science of conservation biology:

We had an opportunity to do it right here – it’s this huge landscape level, we can take a whole landscape conservation biology approach, it’s not like we’re just trying to protect the remnants that are left, like in Southern BC, we could do it right from the beginning. [E – NT: 88]

Thus, the science of conservation biology entered the scene as an important actor in the crafting of a new set of relations for coastal BC. Not only was the science telling environmentalists what they were doing wrong, it was telling them how to get it right. The recommendations coming from conservation biologists aligned nicely with efforts to demonstrate that the central and north coasts had a ‘Big Green Blob’ that could be protected. The area could be translated into the principles of conservation biology, a new set of hands that would induce yet another transformation of the coastal forests.

Environmentalists saw in conservation biology a form of expertise and authority that would allow them to “do it right from the beginning.” However, in this context, this phrase meant designing conservation according to biology *rather than* according to politics. As such, the question of the common good – debated by human interests groups – was separated from the question of the common world, or physical and biological reality as disclosed by scientists (Latour, 2004, p. 93). This separation became manifest in environmentalists’ rejection of a government-sponsored land use planning process (LRMP) that was starting up for the central coast.

According to a backgrounder released by the Government in 1996:

Land and resource management planning is a process of integrated resource planning at the community level. The goal is to provide a consistent, fair opportunity for all interest groups, local government and First Nations to comment on how Crown land will be managed. LRMPs recommend potential uses ranging from full protection to a mix of industrial and recreational uses within a planning area which usually covers one or more forest districts. (Government of British Columbia, 1996)

ENGOs were very sceptical of this process and actively boycotted it. In particular, they were upset that the process did not conform to a conservation biology approach, with the result that “protected areas are in danger of becoming random exercises driven by political opportunity rather than biological necessity” (Canadian Rainforest Network, 1998, p. 10). They garnered support for this position from two conservation biologists. In a Greenpeace-commissioned report (Sanjayan et al., 1997) entitled, *Beyond Brundtland: The Conservation Value of British Columbia's 12 Percent Protected Area Strategy*, well-known conservation biologists Sanjayan and Soulé (1997) argued that BC’s protected area strategy was inadequate for protecting biological diversity. According to the authors, within BC’s Protected Areas Strategy

biologically important criteria have been all but ignored in favour of simply meeting the 12 percent target, with devastating consequences to the long term persistence of some of the province's species, including two large umbrella species, the grizzly bear and the salmon. The major flaw is that the fixed 12 percent target is not biologically defensible and represents political reality at the time, rather than scientific fact.

Moreover, they argue, what has been set aside is largely in alpine or subalpine zones (otherwise described as “rock and ice” by environmentalists) and too small to properly protect species.

Environmentalists were concerned that, while participants could influence how the land was to be used in particular areas within the LRMP planning area, overall, the 12% ceiling predetermined the outcomes of this process. Environmentalists rejected this number as a false and constraining cap on the amount of land that could be protected and referred to it as a ‘cookie-cutter’ approach to land use planning:

We said, “Well, we’re not coming to the LRMP because it’s basically set up to have a cookie-cutter outcome.” It’s the language we used, but the outcome is limited in its scope and it’s predetermined and, in spite of the fact the Government says that you can do whatever, there’s a percentage of enhanced areas and a percentage of special management zones, a percentage of protected areas which they are working towards. [E – NT: 048]

By contrast:

They [environmentalists] wanted to have the capacity right from the, right from the outset to pursue, sort of, an ecosystem based approach. Although, that was somewhat, I wouldn’t necessarily say, less defined, but perhaps somewhat differently defined from where it’s at today. [C – EK: 054]

In particular, environmentalists did not want to engage in debates over protected areas while logging continued, a process that they referred to as “talk and log.” Wilderness advocates had engaged in public consultation processes from the late 1970s forward and were repeatedly dismayed that logging operations continued on the very lands over which they were negotiating (Wilson, 1998):



I worked at the Sierra Club at the time – the Sierra Club has sat at many LRMPs – and what we have learned is if we sit here and it goes on for years and years, and meanwhile they go log all the places that we’re talking about. So, we’re not going to do the “talk and log.” [E – NT: 048]

Hence, ENGOs ignored the LRMP (other than sending observers), choosing to go outside of official “cookie-cutter” processes to sponsor conservation biology-based proposals and to convince others of their merit.

This project began to translate the coastal forests into terms that would include the voices of nonhumans, but would ultimately be inimical to the project of building one good common world for plants, animals, and people. In 1997, the CRN commissioned a group of conservation biologists working for the Round River organization to develop a Conservation Area Design (CAD) for the central coast.<sup>19</sup> As the authors write:

It is the CRN which identified the need for a western science-based ecological “snapshot” of the current state of the central coast landscape, rather than a watershed by watershed assessment. This need, in part, was stimulated by requests of CRN members to acquiesce, in the absence of knowledge about the ecological status of the central coast landscape, in watershed-by-watershed decisions by logging corporations [in the LRMP process]. (Jeo et al., 1999, p. 12)

This project involved the translation of the Coastal Temperate Rainforest and the Great Bear into terms associated with the “western science” of conservation biology. Noting that the central and north coasts of BC “represent some of the last remaining examples of intact coastal temperate rainforest - a globally rare ecosystem occupying less than 1% of the earth’s land surface [the authors] attempt to identify a system of conservation areas

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<sup>19</sup> The report was actually sponsored by four members of the coalition: Sierra Club of BC, Greenpeace, Forest Action Network and Raincoast Conservation Society.

designed to protect and restore ecological values” (Jeo et al, 1999, p. 17). More specifically:

The mission of this project was to delineate and describe a network of core areas and ecological corridors within the coastal temperate rainforest ecosystem that could enhance the long-term viability of key resident species and major ecosystem processes (p. 10).

The authors note that a focus on biodiversity protection is not a typical approach to land use planning. In fact, “existing protected areas managed strictly for biological conservation make up only a small proportion of the terrestrial land base worldwide - about 3%” (Jeo et al, 1999, p. 18). By contrast, the authors argue, many early parks were designated for their scenic qualities or for their ability to meet human needs, such as clean drinking water. As a result, many parks are in the wrong locations and of inadequate size to properly protect biodiversity. Drawing on Sanjayan and Soule’s (1997) report, they note that, “75 % of parks in the province are less than 1000 hectares in size and greater than 65% are in alpine or sub-alpine zones with the coastal temperate rain forest ecosystem grossly under represented” (Jeo et al, 1999, p. 18).

In consequence, the authors sought to produce a report that would “ensure that future protected areas are designated based on conservation science rather than primarily on aesthetic, social, political, or economic considerations” (Jeo et al., 1999, p. 19). This is not to say, the authors quickly assure us, that “economic considerations are inconsequential. Rather, we believe that in order to maintain the application of the best available science to the CAD, socio-economic considerations can be brought to bear in a

separate process after a biologically based CAD is complete” (p. 19). Furthermore, they write:

while we acknowledge that biodiversity may have economic and social values that are considerable and should be accounted for in management decisions (Hanemann 1990; Norton 1990), for the sake of clarity, we do not attempt to include these anthropocentric values here. Instead, our work focuses on defining conservation goals based solely on ecological values and defining and delineating areas that are high priorities for protection, based on meeting conservation goals. (p. 18)

This focus perpetuates what Latour (1993) refers to as the modern constitution – that is, the tendency to simultaneously create new hybrids of humans and nonhumans and purify these heterogeneous networks into the two collectors of society and nature. On the one hand, as I describe below, the authors mixed concepts from conservation biology and data about the coastal forests to designate a new representative for plants, animals, and ecological relationships. They thereby helped to fashion a new hybrid – the grizzly bear as an umbrella species – or tool for designing conservation plans. This tool would then go on to intervene in networks linking trees, forestry companies, transportation systems, retail customers of forestry products, and consumers. However, on the other hand, the authors explicitly attempted to purify questions of ecology from aesthetic, social, political, or economic considerations. As I note later, the problematic nature of this purification was eventually noticed and dealt with by some environmentalists, forming a key moment in the development of a good, common world for trees, animals, and people.

However, in the CAD, the authors argue that conservation decisions must be based solely on the interests of nonhumans; only once their voices have been heard can

other socio-economic interests be given a hearing. But how are the interests of nonhumans to be taken into account?<sup>20</sup> How can they be given voice if they cannot speak?

It is important to note that the question of granting speech to nonhumans is not dissimilar from the question of granting speech to humans (Callon, 1986). Even if nonhumans could articulate their interests in human speech, there are too many of them to be heard all at once, just as is the case with people. As the authors note:

Many hundreds or thousands of species of yet unknown bacteria, fungi, invertebrates, plants, and even a few vertebrates, reside in BC's temperate rainforest, particularly in the soil or forest canopy. There is little hope for a comprehensive examination of all these species any time soon. (Jeo et al., 1999, p. 22)

As such, these hundreds of thousands of beings and their interests need some form of representation. To deal with the impossibility of canvassing the needs of each and every species, conservation biologists have developed two techniques. Both techniques apply filters through which the multiple nonhuman interests of the rainforest may be captured. These filtering approaches are different from procedures in which people cast a ballot for a political representative, but result in a spokesperson nonetheless (c.f. Callon, 1986, p. 13). The first technique applied by conservation biologists is a *course filter* approach:

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<sup>20</sup> The authors note that this is not an undisputed question: "a number of unresolved issues still exist in the theory of conservation area design" [p 18]. Such issues include the "SLOSS" dilemma (should there be a single large reserve or several small reserves?), the "nestedness" dilemma (is species composition in small fragments similar to that in larger areas?) and dilemmas having to do with the optimum shape of reserves. Nevertheless, they argue, "over the last twenty-five years science has begun to play an increasing role in the design of conservation areas, wilderness sanctuaries, and national parks."

The coarse filter or representation strategy seeks to protect intact examples of each vegetation or habitat type in a region. This often equates to the protection of ecosystems rather than focusing on any individual species. The assumption with this approach is that if the habitats remain healthy, so presumably will population of species that depend on those habitats. (Jeo et al., 1999, p. 21)

In this technique, vegetation data available from existing maps and from satellite and air photos is compared with existing protected areas to conduct a gap analysis, the goal of which is to assess whether the existing protected areas adequately represent the different vegetation/habitat types. However, as the authors suggest, not all ecosystem types should be given equal weight: those that have historically been subject to greater levels of loss and those that are directly threatened or endangered should “be given higher priority for protection” (Jeo et al., 1999, p. 22). Moreover, protection should take into account the variability of ecosystems – since “ecosystems are dynamic, not static, the limits to the ranges of variation in ecosystem components and functions should be identified” (Jeo et al., p. 22).

The second conservation biology technique applies a *fine filter* approach to conservation planning, focusing on individual species as representatives of wider ecosystem functions and processes. Just as with the course filter approach, this technique has been invented to deal with the impossibility of determining the needs of every single species in a region:

Because it is practically impossible (and possibly counter productive) to determine the ecological needs for every species resident in a region, researchers have suggested that instead of single species conservation plans, a suite of multiple focal species should be identified. (Jeo et al., 1999, p. 23)

*Focal species* are representatives for other species and ecological processes: “focal species are selected such that their protection, as a group, would concurrently protect all or at least most remaining native species” (Jeo et al., 1999, p. 23). There are three types of focal species: *Keystone species* are those species that play a disproportionately large role in ecosystem function. By protecting keystone species, land managers protect all the other species and processes that depend on them. *Umbrella species* have large habitat and mobility requirements; thus, “protection of umbrella species, by definition, provides protection of other native species” (Jeo et al., p. 24). Umbrella species can help determine the size and configuration of protected areas. Finally, *indicator species* are “tightly linked to specific biological elements and are vulnerable to changes in these elements. The presence or absence of such species can be used to assess ecological health and ecosystem integrity” (Jeo et al., p. 24). Indicator species, the authors note, can play important roles for the “monitoring and assessment of the ecosystem status and for the implementation of adaptive management procedures” (Jeo et al., p. 24).

Together, these two filters are designed to ensure that ecosystems and the biodiversity that they contain are adequately represented. What does it mean to “represent” something? In a sense, it means that the representative speaks for the represented. But who is speaking for whom in conservation biology? Surely, it is the scientists who speak, since animals do not speak. However, scientists routinely design experiments and design techniques to allow the “facts to speak for themselves.” That is, they devise devices and techniques that produce a *speech prosthesis* enabling these nonhumans to become relevant to what is said about them, and thus enabling their participation in the speech of humans. In the present case, nonhumans are made to speak

for other nonhumans. Rather, the representatives selected through the science of conservation biology are hybrids: they are formed out of nonhumans such as trees and animals, conceptual categories such as *ecosystem* and *focal species*, machines such as satellites and their photos, information such as vegetation data, and biologists who are calling for biologically-based conservation strategies. It is this hybrid that is designated as a spokesperson for hundreds or thousands of species.

Does this spokesperson faithfully represent the others? According to Latour, representation is not an issue of correspondence, an either-or situation in which the representative either transparently represents the represented, thus achieving the status of truth, or fails to do so, thus presenting a falsehood. Rather, representation is a challenge and speech is an impediment. As Latour (2004) writes:

With the notion of spokesperson, we are designating not the transparency of the speech in question, but the *entire gamut* running from complete doubt (I may be a spokesperson, but I am speaking in my own name and not in the name of those I represent) to total confidence (when I speak, it is really those I represent who speak through my mouth). (p. 64)

In the CAD, grizzly bears are made to speak for the ecological interests of the coastal temperate rainforest. For one, grizzlies are chosen as a focal species to represent large carnivores, which “play a crucial and non-substitutable regulatory role in natural ecosystems” (Jeo et al., 1999, p. 29). For another, grizzlies are identified as “a classic umbrella species, that is, protection of grizzly bears would also protect a number of other species with similar habitat requirements and associations” (Jeo et al., p. 29). The authors go on:

Grizzly bears have known habitat needs that include low elevation old growth forests and riparian habitat for foraging. Grizzly bears also require large areas of refugia from human persecution and protection of salmon populations. Thus, conservation efforts should focus on identifying and protecting large, connected areas of high quality grizzly bear habitat and limiting human-induced mortality in these areas. (Jeo et al., p. 29)

Key grizzly habitat, the report argues, lies in the very same areas targeted by the forestry industry – low-elevation, old growth valley bottoms:

In coastal British Columbia, these moist nutrient rich riparian areas, the preferred habitat of grizzly bears, are also among the best timber growing sites. Thus, commercial logging activities that alter the biological and physical characteristics of these low elevation valley bottoms pose a clear and present danger to the preferred habitat of the region's largest land carnivore. (Jeo et al., p. 37)

The valley bottoms are also the sites of salmon-bearing rivers. Salmon are identified in the CAD as a keystone species supporting numerous other species including, importantly, grizzly bears. The habitat needs of salmon are identified as dependent on old growth and entire watersheds (Jeo et al., p. 48). In turn, old-growth forests – as a course filter – are identified as essential elements of a conservation design. According to the authors, “structural and functional characteristics found in old-growth forests provide habitat for a large number of species, many of which are dependant on these ecotypes for a significant part of their life history” (Jeo et al., p. 52). In combination, grizzly habitat, salmon habitat and old-growth forest overlap to produce the CAD's “*Core Conservation Areas* that comprise about 51% of the study area and include 74% of remaining old-growth forests and 61% of known salmon stocks” (Jeo et al., p. 56).



### **5.3 Mobilizing Spokespersons for the Rainforest**

With much of the central and north coasts loaded into the “Great Bear” (and its relationship to salmon and old growth trees) as their representative, ENGOs went about introducing the bear to the larger world. Two months after the launch of the CRN, Greenpeace (Greenpeace International, 1996) stated that the upcoming campaign would “consist of community work, lobbying, tracking and publicizing rainforest products in the marketplace and public protests.” The goal was to use every means available to halt the “clear and present danger” posed by forestry operations to “the preferred habitat of the region’s largest land carnivore,” in the short-term, and to develop a new biology-based conservation plan for the region, in the long-term. In the process, international environmental organizations, publics, and customers became interested in and connected to the region, thus serving as allies for the movement.

Several mediations were deployed to connect these groups with the Great Bear. One tactic involved mobilizing the grizzly bears of the coastal forests through the mediation of actors and models in order to give viewers an experience of the bears’ interests. In Callon’s (1986, p. 14) terms, mobilization is a process of displacement and reassembly tied to representation by spokespeople. The plants and animals of the coastal forests are multiple, dispersed, and not easily accessible. But, through the filtering technique described above, they are displaced and rendered equivalent through the representative of the grizzly bear as umbrella species. All of these beings are now capable of being transported along with the bear as their representative. As I describe below, the

bear travelled far and wide, first “walking out” of the forest in 1997, then driving across North America, and finally travelling all the way to Europe.

In early April 1997, several members of the CRN, including Forest Action Network, People’s Action for Threatened Habitat, Friends of Clayoquot Sound, Bear Watch, and Greenpeace, sponsored an activist training camp. A week later, more than sixty activists dressed as grizzly, black, and “spirit” bears staged a demonstration at the corporate headquarters of International Forest Products, Western Forest Products (WFP), and MacMillan Bloedel. According to a Greenpeace press release:

Today the bears delivered eviction notices to the logging companies asking them to leave the rainforest, and carried signs that read, "Clearcutting kills rainforest bears", while sounds of chainsaws and bear growls accompanied the march. (Greenpeace, 1997d)

Noting that most unlogged valleys were slated to be logged within the next 10 years, Karen Mahon of Greenpeace argued “The survival of Canada's rainforest bears is at stake ... In order to protect the bears and the other rainforest species we are demanding a moratorium on logging in the remaining pristine rainforest valleys” (Greenpeace, 1997d).

In this performance, two types of beings speak: bears who represent the forest and Greenpeace who represent the bears. However, they work together to suggest that logging is a destructive, unwanted intrusion and that bears are the legitimate protectors of their pristine rainforest home. Conservation biologists’ and activists’ efforts to displace the rainforest and its inhabitants via the bear and to render the bear mobile involves, as Callon (1986) puts it, “the progressive mobilization of actors who render ... propositions

[such as the destructiveness of logging] credible and indisputable by forming alliances and acting as a unit of force” (p. 14).

Coastal grizzly bears travelled even further in 1999, taking the form of “Bella the grizzly bear.” Bella was a grizzly replicate who travelled around the North-eastern US and Canada in a Sierra Club Rainforest Education Bus to meet the shareholders, students, the interested public, and environmentalists. The full-sized school bus was transformed into a “live rainforest interior,” including moss, the sounds of birds and streams, smells, replicas of small forest animals and “Bella the grizzly bear fishing in a salmon stream” (Derworiz, 1999). The bus, a travelling rainforest inscription, was a hands-on display. The tour started in April at a Home Depot shareholders meeting in an effort to encourage the company to adopt a resolution to avoid purchasing lumber from forests that have been harvested through clear cutting (more on this below). After this stop, the bus travelled to Ontario and through Western Canada back to BC. The purpose was to enable people to experience the rainforests first hand, even if in a bus on a road trip. ““People living in the city don't always have a chance to experience a rainforest, so we try to bring the rainforest to the city’ said Simone Stothers, a campaigner with the Sierra Club of British Columbia” (Derworiz, 1999).

Who is acting in these performances? Obviously, environmental activists are at centre stage as they protest outside of the offices of forestry companies and as they drive a bus around North America. However, they do not act alone (c.f. Szerszynski et al., 2003). In the case of the demonstration, it is the bears – not human activists – who hand out eviction notices. This is a performance in which the audience sees the character performed, not the performer (depending on the quality of the performance, of course).

Activists take on the personality of the bears, not simply through make-believe, but through the use of material costumes and actual recordings of bears. We all know that it is the human activists who perform. However, if the performance is good – if the actor acts well, if the costume looks like a bear, if the recordings sound like grizzlies – then the activists disappear to become, not a bear, but a hybrid. During the performance, there are neither human activists, nor grizzly bears, but a hybrid resulting from the blending of some (but not all) of the characteristics of activists and grizzly bears.

In the travelling road show that is the Sierra Club's Rainforest Education Bus, another kind of action takes place: Bella the grizzly bear stands inside a bus, fishing in a salmon stream. Caught at one moment in time, the scene nevertheless represents the timeless relationship between grizzly bears and salmon in the coastal temperate rainforest. Motionless, Bella nevertheless is transported thousands of kilometres across two countries. The performance here is of a "panorama" (Latour, 2005b, p. 183), a scene that provides the experience of a timeless and complete universe, but one that is nevertheless itself located in a particular time and space. When one steps onto the bus, one is transported into the rainforest, complete with plants, mosses, smells, sounds, and Bella. It is timeless and total. The viewer does not look "at" the rainforest but is located "within" the rainforest. The elements assembled within the bus perform an experience of the rainforest that is total and complete – until one steps off the bus.

While the rainforest bus presents a closed and total world of plants and animals, the purpose of its mobilization around North America was to connect the coastal forests to a wider range of groups outside of their boundaries. Just as the coastal forests' wider ecological context had to be built through the work of Ecotrust and Conservation

International as they translated it into a coastal temperate rainforest, so the wider social and political context had to be built by establishing new connections. Ironically, the nonhuman splendour of the rainforest could only be established by connecting it to more and more humans through a variety of technical mediations. For example, between September 16, 1998 and October 2 of the same year Greenpeace hosted a “virtual boat tour” on its website. According to a press release:

The 52-foot sailing yacht, the “Freedom Dancer,” will act as the cyberspace base for transmitting satellite images to the Greenpeace Canada web site. The virtual boat tour will explore the beauty of the rainforest, feature the people and wildlife who live there, and focus attention on the companies currently logging this global treasure – Western Forest Products, International Forest Products and West Fraser Timber [...] “We’re giving people who don’t have an opportunity to get out and visit this remote and breathtaking rainforest the chance to see it over the next few weeks.” (Greenpeace, 1998b)

Along similar lines, in July 1998, FAN activists uploaded live video footage of Western Forest Product’s (WFP) road-building activities in the Ingram Valley. Efforts such as these were reinforced by “face-to-face,” yet still mediated, encounters between international publics and BC forests. For example, Greenpeace sponsored a tour of Ian McAllister and his slide show and book signings through Europe for the European launch of the GBR campaign in 1998. Beautiful images captured by McAllister contrasted with ugly media stunts, such as the one that took place in Bern, Switzerland, May 22, 1997, when Greenpeace activists “returned clearcut rainforest pulp” to the Canadian Embassy “by building a wall consisting of tree stumps and 2.5 tons of pulp from British Columbia” (Greenpeace, 1997c).

These efforts sought to mobilize not only the coastal forests, but also controversy over them. It was a war in the woods distributed across networks. Although, as I will describe later, direct protests of logging operations did take place, it is important to recognize that much of the action occurred at sites far removed from the actual forest. The fate of the coastal forests increasingly hung on associations and relationships far away from them since it was largely in these distant locations that the fights were fought.

Thus, in addition to the forest and its plants and animals, forestry practices were transformed into formats that could be transported across large distances. For example, on April 21, 1997, Greenpeace released a report in Victoria, Toronto, five European cities (Amsterdam, Hamburg, London, Vienna, Zurich), the United Nations, and “live on the internet.” The report, entitled “Broken Promises: The Truth About What's Happening to British Columbia's Forests” (Greenpeace & Sierra Legal Defence Fund, 1997), critically reviewed the NDP Government’s forestry policies, particularly its claim of “world class forest practices,” using government and industry data and on-site inspections. The report argues that – despite claims to the contrary – clearcutting was still the dominant forest practice, that clearcuts exceeded size restrictions, that forests were cut right to stream banks, that clearcuts took place on steep, unstable slopes, and that clearcutting took place in special management zones that were designated for the protection of wildlife. Additionally, the report suggests that cutting was reduced by less than 1%, leaving the cut level 20% higher than what the Government determined was the long-term sustainable level. Moreover, the report argues that the level of protection of low-elevation old-growth forests increased from less than 4% to less than 6%, and that the Government refused to introduce endangered species legislation.

To fill the breach made by these “broken promises,” the report made specific policy recommendations. Among other recommendations, the report argued for the phasing in of alternative (non-clearcutting) harvesting methods, lifting the 12% cap on protected areas, and instituting a conservation biology planning process for the whole province and ecosystem-based management. In combination with details on the Government’s Public Relations campaigns,<sup>21</sup> the report suggests that the Government was engaged in an exercise of perception management rather than practical changes.

Premier Glen Clark responded by trying to sever environmentalists from BC. Clark called Greenpeace “extremists who are trying to raise money and destroy British Columbia” and vowed to counter efforts in Europe to attack B.C. forestry practices. “They are really enemies of British Columbia,” he said. (Hunter, 1997)

However, this statement had the opposite of its intended effect. Rather than distancing environmentalists from their ability to speak for the environment in BC, the attack strengthened the movement and their resolve to sever retail customers from BC’s forests.

According to one interviewee, being labelled as “enemies of British Columbia”:

had a profound impact on the environmental community in terms of, you know, the NDP was “their Government” and I think it shook them to the core that, you know, the Premier of the NDP could label them in that manner. And, what had been a somewhat fractured and divided environmental community up to that point in time, this sort of served to, what’s the word I am looking for here, you know, it served to unite them, there was a coalescence, a lot of their internal politics were put aside. But, in addition to that, I think that it really drove home the need, or the importance, of looking to, for ways, other than influencing the political process

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<sup>21</sup> The report showed that the government, in conjunction with the federal government and the forestry industry, spent over \$65 million on multiple trips to Europe and the US, on sponsoring forestry tours for other countries’ governments to BC, on monitoring ENGOs activities, and on international communications.

here, to bring pressure to bear. And, ah, really provided an impetus to the work that they were doing in the marketplace and so they started really focusing on that and that. [C – EK: 090]

#### **5.4 *The Impossible Locus of Local Blockades***

Much of the work described above involved attempts to raise public interest in and concern about the GBR and how it was being logged. ENGOs attempted to generate the power of public sentiment to counter the power of forestry companies and the Provincial Government. People in Vancouver, across Canada, in the US, and in Europe had been exposed to the place and the issue of logging practices through the GBR's representatives. The point was to apply pressure on the BC Government to change land use policy for the coastal forests – the pressure coming from BC citizens whom the Government represented or from international publics, to whom the Government is not responsible but is required to maintain a good reputation in the interests of international business. However, this approach to power politics was not very effective, as indicated by the Government's labelling of environmentalists as “enemies.”

A key development in ENGOs' approach involved a shift from engaging interested others in political discussions *about* the forests, to directly engaging them in networks that were directly tied to the forest. The shift was from environmental politics as a set of attempts to influence decisions on behalf of people about the management of the environment, to environmental politics as an intervention in a network comprised of humans and nonhumans: the commodity chain. Environmentalists, as I describe below, attacked this chain at several “points” – the most effective being the sites of sale of BC



forest products in Europe and the US. However, the first “point” was back in the forests themselves. Direct blockades of forestry operations – previously done to put public pressure on elected governments – were now the first step in a campaign to attack the links between the forests and consumers of forest products.

In May 1997, environmentalists from Canada, Europe and the US flowed into the central/north coasts for direct protests against logging companies. The first blockade was of Western Forest Products’ operations on Roderick Island. Greenpeace sailed their ship, MV Moby Dick, up the coast to Green Inlet, close to Roderick Island, where members constructed a *mobile floating base camp* (McLintock, 1997) that would house up to eight people (Curtis, 1997b). Thirty activists from eight countries were aboard the vessel (Curtis, 1997b). The floating base camp was a variation of forestry companies’ mobile logging camps that were used to move around inlets as loggers moved from one site to another. When the loggers moved, so could the activists. In this remote region, the floating base camp was a local innovation used to enable the mobilization of both loggers and activists. On May 21, 1997, eight activists from Austria, Germany, and Canada chained themselves to logging equipment on Roderick Island, hanging a banner that read “Stop Clearcutting the Great Bear Rainforest” beside a giant poster of a grizzly bear (see *Figure 7*).

The caption to this image describes it as “Great Bear Rainforest Action.” What is the action? Who are the actors? Within the frame, we see people, machinery, trees (present and absent), text, and an image. They all participate in the action, though in different ways. To understand this point, it is useful to recognize that these entities do not possess agency as an essential characteristic, but that they acquire the ability to make

others do things through the networks by which they are constituted. All come from different places and times and are thus linked to different actors.



Copyright Greenpeace/Marford  
21st May 1997  
Great Bear Rainforest Action, British Columbia

**Figure 7: Blockade at Roderick Island, May 1997**

Source: Greenpeace International. Reprinted with permission.

The workers have been flown to a mobile camp from Vancouver Island and regions around Vancouver. The Greenpeace activist may be from Austria or Germany. The grapple yarder (logging equipment) came from Vancouver or Vancouver Island and was likely first assembled somewhere else (particularly if one takes into account the sources of the materials that went into it). The Great Bear was designated as an umbrella species by conservation biologists working in Utah. The old trees growing on this particular site are what drew all the others together.

Once assembled on this site, these actors participate in courses of action through their relations with one another. The grapple yarder and its operator, before being interfered with, combined their capacities to log the slope seen in the distance. However, this activity has stopped, the operator walking away from the machine, through the intervention of an activist (crouching atop the yarder), the grizzly bear hanging from the yarder in an image, and a message reading “Stop Clearcutting the Great Bear Rainforest.” The “action” is carried out by the Great Bear Rainforest, a composite actor that is produced through the relations among these entities. The grizzly may seem to be a mere symbol, but it has been produced, through data about real grizzlies, into a spokesperson for thousands of other plants and animals (all of this may be unpacked with reference to the Conservation Area Design). Moreover, text is key, not only because it constructs meanings, but also because it helps represent and mobilize actions. Greenpeace, as an environmental organization with a long history and many members, is mobilized into the scene through the placement of its name on the banners, on the picture capturing the scene, and in the caption below. Meanwhile, a WFP employee notes down information in a notebook, translating the scene into a mobile document that can be reported to others in the company. The conflict is not contained in discourse; rather, as we can see in this picture, words help transport relations that then interact with machinery, trees, people, and images.

Moreover, words and images were used to transport the conflict and link it to other sites. For example, in Bern, Switzerland, Greenpeace activists protested outside the Canadian Embassy (where they “returned” pulp originating from the central/north coasts); in Vienna, Austria, a 24 hour vigil took place in front of the Canadian Embassy;

in addition, demonstrations took place in Seattle, Boston, and Washington, D.C. Footage of the action was taken and flown out of the region to be uploaded to satellite for local, national, and international media. A representative of WFP describes the multiple flows associated with the blockade:

Greenpeace's ship arrived with their own helicopter – a used \$500 million helicopter – a ship, 77 people, six satellite phones, and 60 people blockading the operations. I learned a lot about the environmental movement. They have far more resources than even a company that had a billion dollars worth of sales. We spent nine days, being on the front lines of me going out every morning to get the court injunction, to ask support, and the people locked to our equipment, whether they would be prepared to leave today. All videoed by ourselves, the BBC was there filming, plus Greenpeace had still photographers, and every single day they hired a turbo Beaver, I hired a turbo Beaver, and the video was flown back to Vancouver, spliced for the seventeen stations down here. [C – EK: 025]

It is also important to note elements of the scene that were implicated but invisible, and thus not transported to other sites. While Greenpeace's name appears four times and the name "Great Bear Rainforest" appears three times, and while the forestry companies' machinery, personnel, and documents are captured, First Nations are entirely absent. To some extent, this absence was rectified at a second blockade – this time of Interfor's operations on King Island. In June 1997, the Nuxalk House of Smayusta (an elders council) extended an invitation to environmentalists to join their protest.<sup>22</sup>

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<sup>22</sup> This blockade built on earlier protests against logging in the area began in 1995 when the Nuxalk House of Smayusta invited environmentalists to join forces with them. On September 3, 1995, Nuxalk hereditary chiefs and community members were joined by Forest Action Network at their blockade at Ista (Frog Creek) (where FAN hung a banner reading "Interfor Stop Clearcutting the Great Coast Forest – Forest Action Network"). By September 12<sup>th</sup>, 1995, 60 people were at the site, comprised of Nuxalk (hereditary chiefs, elders, band council and community members) and FAN activists, later joined by three Heiltsuk Hereditary Chiefs. On September 26, 1995 RCMP confronted the 40 or so

Greenpeace, FAN, Bearwatch, and PATH (People's Action for Threatened Habitat) joined protesters on King Island (where they hung a banner reading "Protect the Great Bear Rainforest"). On June 6, 1997, fifty-five members of the Nuxalk Nation and environmentalists blockaded Interfor's access to their tree licence, shutting down their operations for nineteen days. Twenty-four people, including six Nuxalk (Warren Snow, Emily Johnny, William Ernest Tallio, Harry Schooner, Hereditary Chief Qwatsinas [Ed Moody] and Colette Schooner), were arrested.

However, while local First Nations organized this blockade, the presence of environmentalists was not supported by all Nuxalk, and certainly not by the elected chiefs:

Nuxulk [*sic*] elected Chief Archie Pootlass said Monday the protesters are "environmental colonialists". They're not listening to the Nuxulk people. We had a meeting about this on Friday and the clear majority of the Nuxulk people don't support this protest. Most of the Nuxulk people feel they can solve their own problems without Greenpeace coming in and telling the local people what's best for them, he said. "They're splitting families and driving a wedge in", he said. "It's really sad to see the Nuxulk people divided". (Hall, 1997)

Similarly, while not pictured in the image described above, the Kitsoo people met protests on Roderick Island with resistance. Indeed, Percy Starr of the Kitsoo First Nation asked the Greenpeace activists to leave, saying that the Kitsoo "are not happy with their [Greenpeace's] presence here. We realize we have problems, I mean everybody has them. But please give us the opportunity to try to resolve them ourselves" (CBC National, "The Fight Over 'Spirit Bear,'" May 26, 1997). Four days later, a meeting of

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people remaining at the blockade. 22 people were arrested, including 3 hereditary chiefs (Lawrence Pootlass, Edward Moody, and Charles Nelson) and 5 FAN activists.

Western Forest Products representatives, Greenpeace, and the Kitsoo took place. At the meeting, Chief Archie Robinson complained that Greenpeace were not acting with the consent of the Kitsoo, saying, “This is our traditional territory. You did not ask us and we do not support civil disobedience. We are finding solutions and we will phone you when we need help” (Curtis, 1997c). The Kitsoo argued that they were involved in other activities to protect their land, but that they were also focused on the real and pressing need for economic development.

The protests on Roderick Island and King Island were local, direct actions taking place in the coastal forests themselves. Activists chained themselves to equipment so that it could not be used to harvest trees. Protesters stood on roads to impede the movement of trucks and workers. Local people – First Nations – reacted with antipathy to outsiders who were trying to tell them how affairs should be organized on their local land. Yet, at the same time, the protests involved many extra-local elements. Protesters flowed in from around the world (prompting the charge of “environmental colonialism” from Chief Pootlass). Once there, the activists flowed around on a “floating base camp” supported by a large ship equipped with helicopters and satellite phones. Footage of the protests was flown everyday via sea plane to television stations in Vancouver, which then relayed it to hundreds of thousands of homes across British Columbia and Canada. Were these protests local or global?

According to Latour (2005), the “local” is an *implausible locus*. Instead, “what has been designated by the term ‘local interaction’ is the assemblage of all the *other* local interactions distributed elsewhere in time and space, which have been brought to bear on the scene through the relays of various non-human actors” (p. 194). Decisions to launch

direct, local protests against WFP and Interfor were made in Greenpeace's Ancient Forest Campaign headquarters in Vancouver. The ability to make these decisions, in turn, was supported by fundraisers on the streets of cities in Canada, Europe, and the US. Funders, fundraisers and campaign strategists were able to *act at a distance* (Latour, 1987) by deploying the MV Moby Dick and its impressive "resources" to particular sites in the GBR. That these sites are implausible as loci of (solely) face-to-face interactions is given by the fact that "there are a great number of agencies swarming toward them" (Latour, 2005b, p. 196), some of which come from different places, some of which come from different times, some of which are not even visible, some of which apply greater degrees of influence than others, and some of which are nonhuman.

The connections established between the coastal forests and publics, the media and environmentalists in Canada, Europe, and the US did not erase the locality of the GBR by placing it in a global context, but performed a local area of international concern and local, direct protest by progressively connecting it to a wider network of actors. Circulations of the rainforest in a travelling bus, bears in the form of costumes worn by activists, environmentalists on a floating base camp, and conflict filmed, flown, and uplinked to satellite – these flows connected the central coast to other agencies. In this sense the issue expanded – not from the local to the global – but in terms of an increase in size.

Nevertheless, as the GBR became more connected and better articulated, it took on the aspect of a global issue. For one, following the hard work of scientists and activists, ENGOs were able to circulate a total panorama of the GBR in a bus, in McAllister's slide shows, and in news releases. In these displays and descriptions, the

GBR was presented as a *coastal temperate rainforest*, a globally rare and threatened rainforest type. It was also presented as a particular type of ecosystem, with the Great Bear standing in as a synecdoche for its complex relationships. While these representations painted total views of the rainforest and its inhabitants, they circulated in particular places, via the mediation of particular humans and nonhumans.

For another, (following the direction of flow in the opposite direction from that which produced local, direct protest) the issue expanded out to other agencies in other countries. It was not as if the region did not have any connections outside of itself before environmentalists' network-building activities. The Provincial Government based in Victoria, logging companies based in Vancouver, and loggers based in northern Vancouver Island all flowed in and out of the region, through legislation and regulations, tenure, and machinery and workers flown in and out of logging camps. Moreover, the logging companies were connected to the customers of their products, most of whom were located in the US, Europe, and Japan. Indeed, upon recognizing the great costs involved in local, direct action, it was precisely this existing network – the commodity chain – that ENGOs came to exploit to great effect. As explained by one environmentalist:

We can't win this by blockading (that's been the strategy of the environmental movement, blockade and media). One, you can't get people up there, either the media or the blockaders – you couldn't sustain it. So, that's actually not even a viable tactic for us. So, we need to do something different and the markets work has started in Clayoquot, so the markets work was, you know, refocused, on the Great Bear as the power, or the leverage. [E – NT: 090]



Did ENGOs shift their focus from the local level to the global level? Did they take on global capitalism? How could any group, no matter how well resourced, do that? Just as we can locate the local via its connections to other agencies swarming toward it, we can ask who, what, and where is the global market. In particular, we can inquire into how the marketplace is connected to the local sites of logging operations in the coastal forests. As Latour (2005) writes:

Whenever anyone speaks of a “system,” a “global feature,” a “structure,” a “society,” an “empire,” a “world economy,” an “organization,” The first ANT reflex should be to ask: “in which building? In which bureau? Through which corridor is it accessible? Which colleagues has it been read to? How has it been compiled? (p. 183)

In fact, we do not have to engage in this inquiry ourselves, since answering these questions is precisely the task that ENGOs set for themselves.

## **5.5 The Market Campaign**

The market campaign was launched on June 10, 1997 – halfway through the King Island blockade – when the Clayoquot Rainforest Coalition mailed letters to 5,000 companies urging them to phase out wood and paper products that derive from BC’s old-growth coastal forests (Curtis, 1997a). Given the large number of companies targeted, however, environmentalists likely did not know for certain whether all the companies in fact purchased products originally deriving from BC’s coastal forests. More targeted

approaches ensued after this initial mailing, modelled after strategies developed in the campaign over Clayoquot Sound:

[During the Clayoquot Sound conflict] we started tracing the products. At the time with very little resources we were literally following trucks, pretending to be students and going on mill tours. Where is it going? Who's buying it? And so what we found is that the far majority of what's happening in Canada, the logging in Canada, is going to the United States. (Berman, 2006)

Environmental groups drew on this experience to trace the linkages between forestry companies with operations and rights in the central and north coasts and their customers. The market campaigns were primarily conducted by the Coastal Rainforest Coalition (formerly the Clayoquot Rainforest Coalition and soon to become Forest Ethics), Forest Action Network (FAN), Greenpeace, Rainforest Action Network (RAN), Natural Resources Defense Council, and The Sierra Club. In the first step, environmentalists traced forest products to buyers:

We did everything. We did a whole variety of things from electronically tracking sales, to people walking around lumberyards and looking at the wrapping on wood in Home Depot or in wherever – and through that you could figure it out. You know, when I was with Sierra Club somebody was riding by the City of New York's construction site and saw Western Forest Products, you know and phoned up, da, da, da So there was a campaign against the City of New York to stop buying Western Forest Products. Yeah, and so as the boats in Amsterdam you could see. . . I guess you could watch what was loaded and unloaded. So it was some pretty grassroots techniques on the way to. . . ways of you know, electronically figuring out the sales and stuff like that. The other thing was a product called red cedar could easily be tracked because red cedar only comes from a very limited part of the world so if you are selling red cedar, likely it's coming from British Columbia. [E – NT: 544]

Using these grassroots techniques, environmentalists identified traces of networks. To the average person walking past a construction site, a pile of lumber would look like little more than a pile of lumber. To activists aware of the commodity chain, however, the label identifying Western Forest Products was enough for them to see a network linking the lumber back to BC's coastal forests. Strategies such as these enabled environmentalists to more or less map out the entire commodity chain, as represented in *Figure 8*.

In this schematic, a consumer blithely goes about his or her shopping, seemingly unaware of the many chains connecting her or him to a network of other agencies. However, as we can plainly see, any product that ends up in the consumer's shopping cart while he or she strolls around Wal-Mart, Home Depot, or Oakwood homes – whether it is toothpaste, clothing, paper, furniture, or lumber – derives from the processing work taking place in other big companies. Moreover, these companies had to get their raw material from somewhere: if we look above, we see chains connecting the companies to lumber and pulp mills. And where did the mills get their materials? – From the logging companies, surrounded by a sea of stumps. These companies, of course, are connected by a chain to the Ancient Forests of Canada. As a result of these chains, as one ENGO statement argues, “Canada's rainforests are being destroyed to provide the British public with magazines, garden furniture, DIY [do it yourself] products, ladders, household doors, conservatories, garden sheds, and even food products” (Fong et al., 1998).

# Chain of Custody

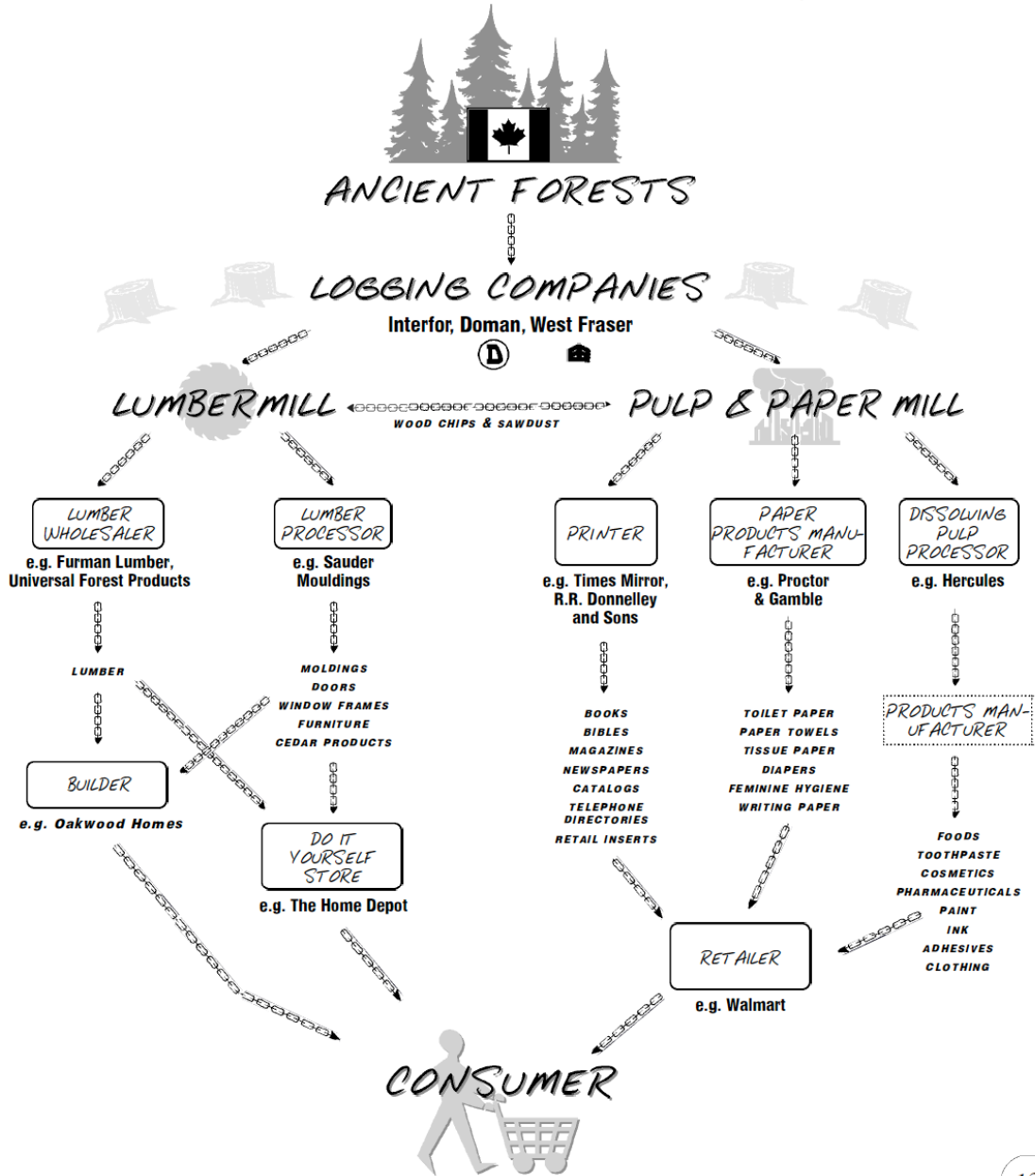


Figure 8: Chain of Custody

Source: Greenpeace (1999). Reprinted with permission.

Interestingly, just as with the CAD, one can discern in this image both an explicitation of the networks connecting humans and nonhumans and an attempt to sever such connections. In the CAD, the authors acknowledge that there are economic links between forests and people and that those links are important. However, they nevertheless suggest that such links should be ignored while conservation plans are made solely for nonhumans. In other works, the chains of translations that connect forests and people are purified into nature and society. The same thing takes place in this schematic. On the one hand, the forests are connected to the consumer through myriad chains – chains identified and traced by environmentalists themselves. On the other hand, these chains are severed since the schematic contains two major parts. The first part consists of the nonhuman world of ancient forests, sitting alone at the top of the page. The second part consists of a human world of production and consumption delimited by an outer ring of chains that describe a circle. Between the two parts, there is a dividing line – a wall of stumps. The impression that one gets looking at this schematic is that (1) consumers must be made aware of how the products they purchase are connected to BC’s forests through several chains and (2) that they should cease making such purchases in order to sever the connection between industry and the forests.

This is the modern constitution at work: simultaneously, the practices of translation and purification are at play. The forests are translated into consumer products: environmentalists have made this explicit.<sup>23</sup> At the same time, ecology is purified from

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<sup>23</sup> This is a different form of the “circulating reference” we encountered in the last Chapter. At each step in the chain, matter undergoes a transformation as it encounters the form of the next step, whether it is the blade of a saw mill, the factory of the pulp mill, or the shopping cart of the consumer. If we follow the entire “chain of custody,” we find a single trajectory connecting the 2X4 in the European consumer’s shopping cart to the

economy: the schematic makes this point rhetorically via the placement of symbols and polemically with respect to the message that it conveys. However, it is worth noting that this attempt at closure – the attempt to purify heterogeneous networks into the spheres of nature and society – is resisted even in the schematic itself. The chain linking the ancient forests to the sphere of production and consumption may appear to connect to pure worlds, but both are hybrid. The lower part is full of humans and nonhumans – companies, mills, technologies commodities and people. So is the top part, since the graphic of “ancient forests” is overlaid with a symbol of the Canadian flag. Here, we are drawn back to the idea of Canada’s Rainforests encountered in the Sierra satellite map. These may be rainforests, but they are not nonhuman, since it took a great deal of human work – in concert with concepts, devices, data, and rhetoric – to produce them and their panoramic positioning in relation to global forest types.

Not only did ENGOs render these chains explicit, but also they intervened in them, attacking their weak points. Activists targeted the commodity chain at several points, moving from the sites of logging operations to transportation of logs to sites of manufacturing, to the transportation of products to retail customers, and finally – and most effectively – to the sites of sale of the final products. For example, on June 24, 1997, Greenpeace activists boarded the log barge *The Seaspan Rigger* in BC. The ship transported logs to processing facilities in BC. According to the organization’s press release, “the Seaspan rigger is used to bring old growth rainforest trees, such red cedar and Hemlock for minimal processing before export to Asia, Europe, and the United

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“ancient forests” of Canada. Ancient forests and tubes of toothpaste, ecosystems and consumer products, nature and society: these things do not describe different universes, but are connected together through chains of transformations.

States” (Greenpeace, 1997a). Using what would become the main message of such protests, the activists attached a banner reading “Don't Buy Rainforest Destruction--- Greenpeace.”

Protesters also targeted the transportation of forest products after they had been processed into other products. On August 21, 1997, Greenpeace activists drew awareness about the origins of pulp and dimensional lumber en route to Europe and the US aboard the ship *Saga Wind*. The forest products belonged to Doman Industries, the parent company of WFP. Protesters spray-painted the word “clearcut” with a slash through it on the side of the ship and attempted to hang a banner across the bow reading “This Ship Exports Rainforest Destruction” (Greenpeace, 1997b) before being knocked off the ship with high-pressure hoses (Curtis, 1997e). The action was justified by Greenpeace in terms of the need to draw attention to the commodity chain: “Right now, in the absence of a clear eco-labelling system, there's absolutely no way they could know that these products come [from the central coast of British Columbia]” (Greenpeace, 1997b).

Activists also targeted the *Saga Wind* where it made port to unload its cargo. On March 27, 1998, Greenpeace activists boarded the ship as it docked in Scotland. This ship was carrying 3,000 tones of wood pulp and about 200,000 board feet of plywood for WFP. The activists scaled a crane and unfurled a banner that read “Don't Buy Canada's Great Bear Rainforest Destruction” (Pemberton, 1998). Two months later, the ship was targeted in the Belgian port of Antwerp, where Greenpeace activists spray-painted the words “Don't buy rainforest destruction. Stop Doman and Interfor!” on the ship's hull (Globe and Mail, 1998). In December, activists targeted the ship as it made port in the Netherlands (Gazette, 1998). In May, activists boarded the freighter *Saga River* on the

Weser River near Bremerhaven, Germany that was carrying pulp from WFP, unfurling a banner reading, “Don't do Business with Rainforest Destroyers” (Greenpeace, 1998c).

Other shipments of forest products were also targeted. For example, on October 20, 1998, Greenpeace activists boarded the ship Thorseggen as it tried to make port in Long Beach, California. The ship was carrying newsprint made by a mill that was supplied with wood chips from Interfor. Activists chained themselves to the ship's unloading cranes and unfurled a banner reading “Stop Destroying the Great Bear Rainforest.” According to the organization's press release “Greenpeace has evidence that large quantities of wood chips from ancient coastal rainforests are being sent to the mills which provide this newsprint to California customers -- including The Los Angeles Times, GTE, AT&T, and the Orange County Register” (Greenpeace, 1998a).

The primary purpose of these actions was to render explicit the chains connecting the coastal forests to cycles of production and consumption. Before this intervention, people did not know where products such as pulp and lumber came from. Industrial and retail customers (and their customers) encountered these products as simple things that were unconnected to other things. But environmentalists claimed that customers were “destroying the Great Bear Rainforest” How could they make this claim? Customers were not even in the same country as the forests, let alone wielding chain saws and cutting them down. However, as environmentalists discovered, there are direct chains connecting the products to BC's coastal forests. Simply by rendering these networks explicit, ENGOs could indicate that when a company or individual purchased a product, they were actually acting on a distant place (Latour, 1987, p. 219). Customers thought that they were simply buying products but they were buying rainforest destruction, since



the product that they purchased was linked through a commodity chain to the forests. Actions are not performed by individuals but by networks, or, in Latour's (2005) terms, "action is overtaken" (p. 45). That is, customers' purchase is taken over and translated by other entities resulting in particular outcomes in a forest far away. Customers' seemingly local and delimited purchase of forest products is connected via transportation technologies to manufacturers who in turn are connected to logging companies who in turn are connected to the forests. At each link along this chain, forests become translated – into logs, pulp, lumber, wood chips, paper, furniture, clothing, and so on. If the entire chain is maintained, then an action at one point will have effects at another point, with the result that ENGOs can claim that customer's actions have effects on distant forests.

## ***5.6 The Spectre of Consumer Boycott: Transforming Companies Into Activists***

From 1997 to 1999, environmental organizations put pressure on industrial and retail buyers of pulp, paper, and dimensional lumber, including companies that use pulp to create fabrics and glues, paper users, paper sellers, home builders, lumber sellers, furniture stores, and, perhaps most significantly, do-it-yourself home improvement stores.<sup>24</sup> When ENGOs targeted these companies, they were taking on, in a sense, the "global capitalist market." However, while a company such as Home Depot is very big in the sense that it has big box stores, many stores in many countries, many employees,

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<sup>24</sup> While "The Consumer" is at centre stage in the "Chain of Custody" presented above, ENGOs' real target was the companies that sold BC forest products to the consumer.

and large profits, it is not big in the sense of a capitalist social structure that dominates puny individuals (Latour, 2005, pp. 178-179). As mentioned earlier, Latour (2005) uses the term oligopticon to refer to powerful actors that give the impression of operating within a social structure through their many connections. As he writes:

As soon as the local sites that manufacture global structures are underlined [with the notion of the oligopticon], it is the entire topography of the social world that is being modified. Macro no longer describes a *wider* or a *larger* site in which the micro would be embedded [...] but another equally local, equally micro place, which is *connected* to many others through some medium transporting specific types of traces [...] What is now highlighted much more vividly than before are all the connections, the cables, the means of transportation, the vehicles linking places together. This is their strength but also [...] their frailty. (p. 176)

As ENGOs found, companies such as Home Depot exist as networks that are only as strong as their weakest link which, in their case, took the form of consumer preference. If ENGOs could stigmatize the companies' brand, they could sever the retail companies from their customers - the consumer (Conroy, 2007). In fact, it turned out that this link is so weak that all ENGOs had to do was to raise the spectre of a boycott of companies that purchase products deriving from BC's central and north coasts. Since Home Depot was the "largest retailer of wood products in the world," (Greenpeace, 1999, p. 18), and since it sold products from BC's coastal forests, including mouldings made by Sauder Mouldings (a corporate affiliate of Interfor), the company became the target of a sustained campaign. Environmentalists met with Home Depot executives, sent over 8000 letters and postcards to Home Depot and staged numerous demonstrations, including ten protests in the Western states in September, 1998, 75 protests in the US and Canada in October, 1998, weekly protests during January and February, 1999 at new Home Depot

openings, and 150 demonstrations at Home Depot stores in the US and Canada on March 17, 1999 (Stansbury, 2000).

Just as with the actions on the freighters, environmentalists' goal was to "explicitate" (Latour, 2007, p. 2) the network connecting the commodity items for sale in Home Depot's stores to the forests from which they derived. While before these protests, customers could walk into a store and pick up a 2X4 with the only considerations being quality and price, ENGOs showed that the products were not simply 2X4s (or other simple commodities) but that they were connected to other places, beings, and issues. In other words, purchase of a 2X4 became connected to a host of unintended consequences; as one banner put it, "Ancient Forest Destruction: On Sale Now at the Home Depot." This network, of course, was represented by the Great Bear, now taking the form of a giant 40-foot inflatable bear which travelled to most protests in Europe and the US.

The campaign against the Home Depot was preceded by protests of other retailers in Europe. The European campaign was largely successful, as noted by one interviewee:

We stigmatized the product so over in Europe, it was just became, you know, I don't really know what the details are, but you know, "BC - bad for business to buy BC wood." And one of my favourite quotes from Bill Dumont, who was the chief forester of WFP is, "You can't sell a 2x4 with a protestor hanging off of it." And, I remember talking to customers who were just like, you know, "If you buy from Sweden, it's just clean." Whereas, you know, our campaigns, which were targeted at Interfor and Western Forest Products, they just came to blemish BC wood products. And so, that was hugely effective. We tarnished the brand of the companies and it actually expanded beyond just even the companies. [E – NT: 336]

As such, ENGOs had a large number of allies on their side when they took on Home Depot. For one, they had the Great Bear, over whom, as I discussed in Chapter 4 and the

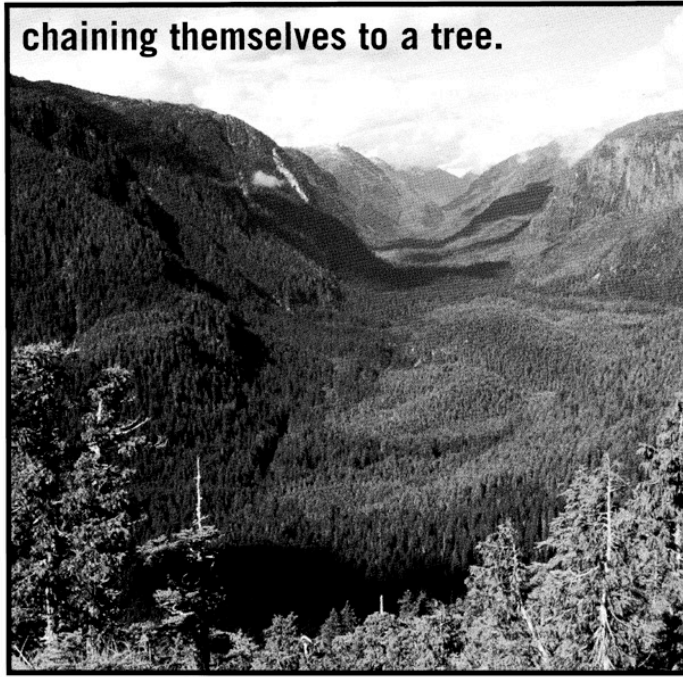
first part of this chapter, environmentalists and activist scientists had spent so much work to enrol as a representative (both as a “profound symbol” and an umbrella species) for the coastal temperate rainforest. For another, ENGOs had ‘The Consumer’ on their side, insofar as retail companies were cowed by the threat of a consumer boycott. Due to the success of their campaigns in Europe and the US, ENGOs now had a number of companies on their side – companies which previously were part of BC forestry companies’ networks.

On September 29, 1997, B&Q, Europe’s largest do-it-yourself furniture maker announced that it would cease to purchase BC hemlock and move to pine in an effort to avoid lumber harvested in unsustainable ways. Signalling the fact that the company had switched alliances from lumber companies to activist networks, this move was framed as a protest by news media: “In a protest against logging practices in British Columbia, one of Great Britain's largest do-it-yourself furniture makers has decided to boycott B.C. hemlock, the predominant species on the West Coast” (Matas, 1997). The contracts between B&Q, MacMillan Bloedel, and Interfor were relatively small (300-400 cubic metres annually [Curtis, 1997d]), but the hope was that the action by the company – the leader of a group of companies committed to buying only certified wood products by 2000 – would influence other companies to follow suit. According to Tzeborah Berman (cited in Hamilton, 1997), “this contract is small but it's the domino effect we expect to see.” Cancellations started to pick up in 1998 after Greenpeace UK officially launched its market campaign in March, at which time they already had secured cancellations by B&Q, Sainsbury's Homebase, and Do It All. The UK was the largest European importer of BC forest products.

While the overall European share of the BC forest product market was relatively small at 10-11%, forestry companies were concerned due to a softening of the markets associated with the “Asian flu.” Moreover, environmentalists lead by the Coastal Rainforest Coalition (made up of Greenpeace, Rainforest Action Network and Natural Resources Defence Council) also attacked forestry companies’ largest customers in the US. By April 1, 1998, Greenpeace (1998d) claimed US cancellations from “California-based HomeBase, Inc. (the third most profitable do-it-yourself chain in the country), Xerox, Kinkos, 3M, Bristol-Myers-Squibb, FedEx, and two Fortune 500 firms who wish not to be publicly identified at this time.” They also added Magnet Stores, BBC Magazines, and German do-it-yourself stores to their European list. The combined cancellations totalled tens of millions worth of logging contracts according to the organization.

Environmentalists soon claimed that 27 major companies that buy forest products had joined environmentalists to become activists. An advertisement placed by environmental groups in the New York Times on December 8, 1998 states, “How leading U.S. companies are saving ancient rainforests without ever chaining themselves to a tree” (see *Figure 9*).

# How leading U.S. companies are saving ancient rainforests without ever chaining themselves to a tree.



AALTANHASH VALLEY, BRITISH COLUMBIA, intact unprotected river valley scheduled for logging by Western Forest Products, photo by Jan McAllister 1998.

## These companies are leading the way in the protection of ancient forests.

- |                             |                               |                                           |                                |
|-----------------------------|-------------------------------|-------------------------------------------|--------------------------------|
| • 5M                        | • IBM                         | • Mitsubishi Electric of America, Inc.    | • Patagonia                    |
| • Advanced Micro Devices    | • Johnson & Johnson           | • Mitsubishi Motor Sales of America, Inc. | • Quantum Corporation          |
| • Bristol-Myers Squibb Co.  | • Kinko's, Inc.               | • Mother Jones                            | • Seventh Generation           |
| • Dell Computer Corporation | • Levi Strauss & Co           | • Mutual of Omaha Companies               | • Starbucks Coffee Company     |
| • Estée Lauder Companies    | • Liz Claiborne Inc.          | • National Geographic Society             | • United Stationers Supply Co. |
| • Hallmark Cards, Inc.      | • Lockheed Martin Corporation | • NIKE, Inc.                              | • Utne Reader                  |
| • Hewlett-Packard Company   | • The McGraw-Hill Companies   | • Pacific Gas & Electric Company          |                                |

Many of America's leading companies realize that saving the earth's last ancient forests is an essential part of doing business. And for good reason. The buying public is making it clear that it doesn't want wood products that destroy old-growth forests. These forests provide a home for 90 percent of all plant and animal species, and are a source for the life-saving medicines of tomorrow.

Sadly, less than a quarter of the world's original ancient forests remain intact. One of the most threatened old growth forests is the coastal rainforest of British Columbia in Canada. Of the original 353 valleys on B.C. coast, only 69 still remain pristine. The vast majority of these valleys are slated for clearcut logging, or to be split open by damaging roads — largely to feed U.S. consumption. The major offending logging companies are Interfor, Doman and West Fraser.

The good news is influential U.S. industry leaders are committing to sound business practices that will help preserve the world's last old-growth stands. They have committed to survey their wood and

paper suppliers, shift away from old growth to independently certified or alternative materials, and to reduce overall virgin wood fiber use. We don't always agree with these companies on other issues, but today we roundly applaud them for their leadership in helping to save the world's ancient forests.

There's a long way to go. Some companies are resisting making a commitment to save what cannot be replaced. There's still time for other companies to join the effort. You can help. Call the Coastal Rainforest Coalition at 510-540-8750 to learn how your company can join those leading the way, or how you can encourage those companies lagging behind to catch up. Visit our website at [www.coalition4bc.org](http://www.coalition4bc.org)



Clearcut by International Forest Products, 1996, Coastal Island, B.C., Canada. Photo by Jan McAllister

## These companies are lagging behind.

- AT & T - C. Michael Armstrong, CEO
- BellSouth Corp - E. Duane Ackerman, CEO
- Home Depot - Arthur Blank, CEO
- Hercules - R. Keith Elliot, CEO
- HomeBase, Inc. - Allan Sherman, CEO
- Los Angeles Times - Kathryn Downing, CEO
- Wal-Mart Stores - David D. Glass, CEO

Sponsored by Coastal Rainforest Coalition, which consists of Greenpeace, Natural Resources Defense Council and Rainforest Action Network.

Figure 9: New York Times Ad, Dec 1998, CRC

This advertisement both renders networks explicit and seeks to purify them, thereby reproducing the modern constitution. On the one hand, it makes clear that forests are connected to businesses and the decisions that they make. The connection is emphasized through the placement of the text in relation to a photograph of the forests. The sentence starts outside of the picture frame but ends within it. This suggests that the companies are able to act at a distance with respect to the forests (see above discussion about actions on freighters): they are outside of the forests but nevertheless can reach into their framing, acting on them without physical contact (chaining themselves). This ability is explained in the accompanying text, which suggests that companies “have committed to survey their wood and paper suppliers, shift away from old growth to independently certified or alternative materials, and to reduce overall virgin wood fibre use.” In other words, the companies are seeking to render explicit the networks connecting them to forests in order to ensure that the products that they purchase do not adversely impact the forests.

On the other hand, these connections are purified into business and nature since the overall goal of the campaign is to sever these companies from BC’s coastal forests. The frame containing the photograph (taken by Ian McAllister) severs “leading US companies” from the intact unprotected river valley contained within. Activism (“chaining themselves to a tree”) is admitted within the frame, while business remains outside. Thus, even though business is linked to activism and to conservation, it remains outside of “virgin” nature. The choice is presented in stark terms: there are those “leading” companies that have chosen to “save what cannot be replaced,” represented in the top picture, and those who have not made such a choice and are thus destroying

forests, represented in the bottom picture. Good companies, connected to the preservation of a separate nature, are contrasted with bad “lagging” companies, connected with a destroyed landscape. The latter companies are separated and singled out in the ad, placed in a separate box.

Interestingly, while there are stark differences between “lagging” companies and environmentalists, just as there are between the intact valley and the logged valley, the lines have started to become more permeable between environmentalists and the “leading” companies. As noted, the title sentence is both inside and outside of pristine nature, previously the sole responsibility of environmentalists. Companies are now represented as environmental activists. Moreover, no line delimits the top of the box containing the companies who are “leading the way in the protection of ancient rainforests.” The ad identifies a commonality between environmentalists and companies, between business and conservation, so much so that environmentalists are forced to distance themselves somewhat even while they tout the companies’ good business decisions. As the ad states, “we don’t always agree with these companies on other issues, but today we roundly applaud them for their leadership in helping to save the world’s ancient forests.” As this sentence indicates, there is some tension or ambiguity with respect to the relationship between environmentalists and businesses that are on their side of the issue. ENGOs simultaneously recognize connections and purify them, thus reproducing the modern constitution; however, in doing so they create the possibility for a new approach that is not built on the premature equivalence of “ancient forests” with nonhuman nature. As we will see in Chapters 6 and 7, ENGOs began to work with



forestry companies to produce a new nature that does not exclude but includes human work.

The advertisement suggests that “leading” companies have internalized the goals of the environmental movement. As the advertisement states, “many of America’s leading companies *realize* that saving the earth’s last ancient forests is an essential part of doing business” (emphasis added). How could this be? How could companies have made such a counter-intuitive realization that environmental activism is an essential part of doing business? With the term “realize,” the ad suggests that this was an interpretive, cognitive process. As sociologists have long argued, cognition is not strictly speaking a faculty of individuals, but of groups (Douglas, 1986; Durkheim et al., 1963 [1903]). A company or an organization can “think” and make “realizations.” But where do these thoughts come from? According to Latour (2005), the means of interpretation circulate along with everything else, as “without some equipment brought in, human actors would remain, even in the midst of the best-designed frame, unable to interpret what is given” (p. 206).

In 1998, the Coast Rainforest Coalition (CRC) – the coalition of environmental groups of which Greenpeace was a member – sent letters to companies sourcing forest products from coastal BC. According to Conroy (2007), they then “gave the companies 90 days to respond, politely adding that they would then run a full-page ad in the *New York Times* that would list those willing to sign a commitment to save North America’s last great ancient rainforest and those who refused” (p. 49; see *Figure 10*).

Date

Mr. Y. Papier  
Big Catalogue Corp.  
500 Fortune St.  
Yourtown, Yourcountry

Dear Mr. Papier:

Our organization would like to inform you of our concerns that your company may be unknowingly purchasing paper ( or lumber, or market pulp ), derived from the clearcutting of ancient temperate rainforests in British Columbia. If this is indeed the case, we ask that your company commit to eliminating your use of these products, as many alternatives are available which do not produce such severe environmental and social consequences.

Clearcut logging has been criticized by an independent panel of internationally recognized scientists, as well as by major environmental organizations. If your company is buying products made from British Columbia's rainforest you are providing an economic incentive for continued clearcutting.

Public opinion is against the clearcutting of ancient forests and the human rights abuses of cutting on lands never sold or ceded by the indigenous people of British.

Our organization is committed to informing the public of the responses of businesses to this important environmental issue. As you review your company's chain of custody on these wood products, we ask that your company commit to a rapid transition away from ancient forest products in a written public statement. If your firm is not purchasing any ancient forest products ( in whole or in part ) we ask that you state that your firm has chosen not to do so in the future. If you find it useful, we would like to suggest language such as: "( Our company ) will not knowingly use, distribute, or purchase wood products made wholly or in part from old growth trees."

Thank you for your attention to this serious issue.

Sincerely:

You

**Figure 10: The Markets Campaign: Sample Letter to Business**

Source: Canadian Rainforest Network (1998). The Great Bear Rainforest Conservation Toolkit. Unpublished Campaign Material.

Date

Dear Environmental Group:

Our corporation is concerned about the protection of the world's remaining ancient forests. We are especially concerned about areas such as the Great Bear Rainforest in British Columbia which are currently threatened by destructive logging. We are committed to implementing policies that will help to insure these forests are permanently protected, and to insure that our company is in no way a participant in the loss of these global treasures. Therefore, our corporation is announcing the following steps:

\*We will immediately conduct an audit to determine if any of our wood-based products (including paper, pulp, and lumber) are derived from logging ancient rainforests in British Columbia. We will immediately suspend any contracts for materials that are derived from companies who are logging or planning to log in the Great Bear Rainforest.

\*We will inform our suppliers for all wood-based products that as of (date), it will be our policy to no longer purchase products that derive from any companies engaged in logging of ancient forests. We do believe however, that indigenous and/or long-settled forest dependent communities in ancient forest areas, who control and manage their resources in an ecologically responsible manner, should be supported. We will consider procurement of forest products derived from such sources and certified by a Forest Stewardship Council accredited certifier. Suppliers will be required to verify in writing that the sources of wood-based products they sell to our company, meet this policy. They will be asked to agree to periodic random audits to insure their compliance. Suppliers who violate this policy will be terminated immediately.

\*We will inform our suppliers that in the future we will give preference to recycled products, products from secondary forests certified by the Forest Stewardship Council, as well as products derived from agricultural waste or agricultural fibers from organic sources.

\*Finally, we are committed to reduce significantly our overall consumption of fiber through conservation and improved efficiency. We will set targets for reducing paper, pulp, and building materials usage and for increasing the use of the aforementioned alternatives.

Our corporation is not only committed to implementing these policies, but also to encouraging other companies within our industry to do the same. Preserving the remaining ancient forests of the world for future generations will require that all companies join us in this effort.

Sincerely,

Concerned Corporation

**Figure 11: The Markets Campaign: Sample Letter From Business**

Source: Canadian Rainforest Network (1998). The Great Bear Rainforest Conservation Toolkit. Unpublished Campaign Material.

With little or no experience in the area of “saving ancient forests,” companies would be at a loss to interpret a letter such as the one below. Fortunately for the companies, ENGOs provided them with the needed interpretive “equipment” – referred to by Latour as “plug-ins” – when they targeted them in their campaigns. As can be seen in *Figure 11*, companies were supplied with a ready-made script detailing their “realization” of how ancient forests and business practices were connected. They were “concerned about protection of the world’s remaining forests,” especially the Great Bear Rainforest. As such, they would audit the sources of their products, suspend contracts from companies with destructive operations in ancient forests, develop procurement policies that avoided products sourced from endangered ancient forests, support eco-certified products, and reduce their own consumption. Moreover, as newly found activists, companies would seek to convince other companies to do the same. In fact, while the wording was changed, in companies’ letters back to CRC, many of these themes were prominent.

ENGOs’ campaign to sever BC forestry companies from their retail customers relied on tactics that mobilized BC’s coastal forests, bringing the controversial forest to Europe and the US in the form of letters, protestors hanging off of 2X4s, slide shows, pulp and stumps, and a 40-foot inflatable bear. However, one of the key moments in the campaign involved mobilizing the retail customers themselves. In August of 1999, ENGOs sponsored a tour of BC’s coastal forests for a German Pulp and Paper Association (VDP - Verband Deutscher Papierfabriken) and the Association of German Magazine Publishers (VDZ - Verband der Deutschen Zeitschriftenverleger). The associations, which had previously gone on tours sponsored by forest companies and the

Provincial Government, were now given a tour by ENGOS. According to the forestry company representative who was allowed to accompany the tour but not to comment, the ENGOS turned the tour into a striking performance:

We flew into a cut block, and it was just an ordinary coastal forest practices code coastal cut block, it was about a 20-hectare clearcut. And the Greenpeace Germany forest campaigner, Thomas Henningson, gathered everybody around -- in quite a dramatic way -- standing well into the cut block, and it was on the side of a hill, not real steep, but a gentle hill like that, and we were at the top end of it and you could see all around, and he pulled out this silviculture prescription for this block, which he had obtained. And, it said in the, in the prescription, in the column where it lists the type of harvest system, it said, "clearcut with reserves." But, this was a clearcut.

JP: There was just no reserves?

Interviewee: (0:15:22) No, here's the thing, it was actually a 35 hectare block and so there was like 12 or 14 hectares in the reserve but it was on the edge of the block. It was not in the middle or scattered or distributed, it was on the edge. So what you were looking at was a clearcut, right? This astounded the Germans; they felt like they had been lied to by both the Province and by industry. [F – QB: 030]

After the tour (which took four days and covered 18.5 hours of flying time on two helicopters [F – QB: 022]), the associations requested a meeting with ENGOS, forestry companies, and government. According to the facilitator of the meeting:

It was one of those meetings that I will never forget. [Laughter]. Ah, they were, they were just – to suggest that they were furious would be an understatement. And, they felt that they had been lied to by the Provincial Government, deceived by the industry as well, they made those statements in the meeting. One of them, the chair of the group, or the fellow that was the de facto chair of the group, the delegation, was just shaking with rage at one point in the meeting. Holding up a picture of a cut block and pointing to it and it had something to do with in-stand retention and how they'd been, in-stand retention had been calculated and said, "You know, you lied to us," [C – EK: 112]

The two associations, which together represented significant contracts for forestry companies, threatened to cancel the contracts if the land use conflict could not be resolved. At the same meeting, word was received that the Home Depot had announced that it was changing its procurement policies and a commitment to purchase Forest Stewardship Council certified forest products. These events, in addition to the previous contract cancellations, shifted forest industries' networks in a significant manner:

It was really there that I think was the turning point where they decided that they needed to take a different approach. You had some companies that were beginning to believe that they were sort of, one protest away from losing significant contracts. [C – EK: 116]

In response, BC forestry companies came together to discuss how they might collectively address ENGOs' demands. This was a very significant development that induced a shift in environmentalists' approach to wilderness politics from the politics of limits associated with the modern constitution to an attempt to craft one good common collective for humans and nonhumans. I will discuss the forestry companies' new strategy and ENGOs response in the next chapter. For now, let me review how ENGOs arrived at this point.

## **5.7 Conclusion**

Having translated the coastal forests into the Great Bear Rainforest through a number of scientific, discursive, and relational practices (analyzed in Chapter 4),

environmentalists set out to generate the power required to save it by enrolling allies. This endeavour of interestment involved a tension: on the one hand, it involved the establishment and explicitation of many connections between the coastal forests and people in Canada, Europe, and the US. On the other hand, environmentalists sought to purify connections in order to save the rainforest as a “pristine” nonhuman landscape.

As described in the last chapter, a principle reason that environmentalists set out to redefine the central and north coasts was to shift the interests of the BC wilderness preservation movement away from the desire to protect individual “last remaining” valleys to a proactive concern for comprehensive conservation. In this chapter, I showed how environmentalists intervened between activists and their individual campaigns through the mediation of a retreat that addressed activist burnout. This retreat was not designed for the purpose of enrolling the wilderness movement in a new campaign, but it was effective for that purpose nonetheless. Spirituality, personal growth, and connection to a larger unifying force provided the context for strategizing and coalition building around a campaign for the GBR. One element of this retreat was respect for First Nations. First Nations were recognized as having a special relationship with and connection to the land. However, during the campaign it became apparent that environmentalists assumed that they could speak on behalf of First Nations due to an overlap in their interests. Attempts to align First Nations’ interests in rights and title with environmentalists’ interests in conservation took place in blockades in Nuxalk and Kitsoo territories. This attempted interestment saw significant push back from many First Nations.

One ally that did not provide any pushback, but that would be a key actor in ENGOs’ campaign nevertheless, was the Great Bear. As described in this chapter,

ENGOs and their conservation biologist colleagues deployed a variety of devices – scientific, theatrical, educational, representational – to enrol bears as the spokespeople for the forests. Does this mean that bears “have” agency? This is an incorrect way of framing the question since agency is a relational effect. The bear did not speak alone, but in connection with activists and their texts: bears were hybrid actors. Bears were *translated* into different forms and *made* into spokespeople. For example, the “habits” of bears were translated into “territory” which translated bears into an umbrella species which was used to filter all the other species in the forests. But what about the “real” bears at the origin of the translations? Did they object to their enrolment? Did they “kick back” or cause any problems or surprises for those enrolling? In this case, bears (which, it must be acknowledged, have no essential reality but are always already material-discursive hybrid achievements) performed somewhat like Callon’s (1986) fishermen: they stood by quietly without objecting to their translation and enrolment into the network. Much of the origin of the action is therefore with environmentalists and scientists. However, this does not necessarily entail that the latter socially constructed the bears or projected an image or set of meanings and symbols onto bears as a blank slate. The key point is that bears were drawn into a network through simultaneously material and symbolic means and – in their new translated form – participated in the course of actions.

The bear as hybrid spokesperson travelled far and wide, projecting the panorama of the GBR wherever it went. The most important places that it visited were sites within the network connecting the coastal forests to retail customers in Europe and the US. By tracing these networks, environmentalists rendered explicit the chains connecting ecology



and economy. As such, they were able to decompose the centred and total power of the market into oligoptica that are only as strong as their weakest link. Simply explicating the networks helped, but attaching controversy to them was even more effective. As a result, ENGOs were able to sever the retail customers of BC forest products from BC logging companies and enrol them into environmentalists' activist networks.

ENGOs' power to influence forestry companies derived from a heterogeneous network of actors: satellites, planimeters, "Great Bears," activists, photographs, stories, focal species, do-it-yourself stores, consumers, and industry associations. If you choose to isolate one of the features of the network and then abstract it as the power of the market, of science, of economic resources, or of images, then not only will you have an impoverished explanation, but a tautological one. That is, the power of the market will be invoked to explain ENGOs' power to influence forestry companies, or the power of science to explain the power of  $x$ , or the power of images to explain  $y$ , and so on. However, if you take any one element of the network, say the VPZ representative's trembling rage against forestry companies, you are led elsewhere in the same network. You are led to the market campaign. But this leads you to a commodity chain which you can trace by following a boat to a mill and back to a forest. And this leads you to not any forest, but a "coastal temperate rainforest," which leads you to rainfall, vegetation, provisional definitions, and the attempt to shift the focus of the BC environmental movement. And if you trace this forward along a slightly different path, you are led to airplanes, boats, and field expeditions in the employment of lay science. But this leads you to stories and images that are used to construct a "profound symbol" and "usher in a

campaign.” Forestry companies’ decision to reconsider their position is a moment in this network of performances, and can only be understood in relation to it.

If power is generated as an effect of networks, then surely it cannot be held by any one actor, and certainly not by an actor who rationally mobilizes resources to achieve an unmoving goal. Nevertheless, actors (which are really actor-networks) may become invested with a great degree of power due to the networks that they represent. ENGOs “have” power because they “represent the environment.” ENGOs “have” power because they have enrolled large corporations such as Home Depot into their activist networks. Large corporations “have” power because they are connected to thousands of consumers and millions of dollars worth of contracts, the latter of which are connected to forest products and workers. They are all oligoptica in Latour’s terms: actor-networks with many connections, rather than operatives of large social forces or materials of an overarching social structure.

Moreover, power is connected to an actor’s position within a network. Actors gain power when they enrol allies in their projects. ENGOs successfully enrolled other environmentalists when they shifted their focus to the north and formed the CRN. But to do so, they first had to enrol scientists who enrolled the coastal forests in the form of a ‘coastal temperate rainforest’ and an inventory of conservation opportunities. Then the CRN, through conservation science, enrolled the Great Bear, a representative that travelled with them as they explicated the forestry industry’s networks. Through this work, ENGOs enrolled a virtual consumer and, through this entity, retail customers of BC forestry products. The latter joined ENGOs’ activist networks when they acted to “save the forest without ever chaining themselves to a tree.”

This was a key step in ENGO's process of power generation. According to Callon (1986), "interessement is the group of actions by which an entity ... attempts to impose and stabilize the identity of the other actors it defines [...] To be interested is to be in between (inter-esse), to be interposed" (p. 8). Subsequent to defining forestry companies as Rainforest Ravagers (Greenpeace International, 1996) with interests in controlling and exploiting coastal forests for maximal profit, ENGOs offered a new identity to forestry companies – responsible companies with interests in forest conservation – by exploring and intervening in the wider networks making up forestry companies. In particular, ENGOs traced the commodity chain for BC forest products so as to apply pressure – to interest – on key elements of forestry companies' networks: their customers. Interessement, like all stages of network production and maintenance, is the outcome of flows of humans and nonhumans. Environmentalists' campaigns to protect BC's central and north coasts mobilized a large number of human and nonhuman elements: environmental groups and their activists, demands, and conservation plans; forestry companies and their forest practices, representatives, products, and customers; coastal forests and their plants, animals and trees; First Nations and their claims of title and self-governance; and other flows involving news media and consumers. The means by which these elements were mobilized were likewise multiple and heterogeneous: communication technologies employing satellites, cell phones, computers and the internet; vehicles including boats, planes, helicopters, and a bus; product identification and tracking technologies; visual technologies including cameras, video cameras, and slide show equipment; business procurement policies; and metaphors and symbols including the Great Bear Rainforest and the spirit bear.

While environmentalists generated power through representing and intervening in networks, their ultimate goal was to sever connections between ecology and economy. They noted the connections but treated them as something that needed to be removed. Ecological requirements were separated from questions of society and economy in the CAD; ancient forests were depicted as separate from the sphere of production and consumption in the commodity chain; “leading” companies that had changed their business practices were applauded for severing their connections with the coastal forests. The goal at this point remained the preservation of a large landscape, rendering it off-limits to economic activities.

Nevertheless, these processes induced others that helped to prompt a “collective” approach to wilderness politics (which I analyze in detail in the next chapter). The CRN contained a variety of views, some of which were amenable to the idea that ecology and economy can be reconciled. The coalition avoided the government-sponsored land and resource management process, leaving them open to exploring novel solutions (examined in the next chapter). Even where environmentalists attempted to purify nature, their own materials resisted. The thing that was to be purified – Canada’s rainforest – was a hybrid human-nonhuman production. Additionally, when environmentalists achieved success in enrolling businesses into their networks, the boundary between business and activism started to become blurred. These developments set the stage, so to speak, for an experimental new approach to wilderness politics in coastal BC: the collective composition of one good common world for humans and nonhumans. It is to the development of this approach that I now turn.

## **6 Enrolling ENGOs, Forestry Companies and First Nations in a Common Matter of Concern**

The last chapter examined the means by which environmentalists attempted to enrol other groups into their network. These attempts at interestment were successful with several groups. While members of the wilderness preservation movement initially resisted the tactics of personal growth and spirituality at the activist retreat, they came together to form the Canadian Rainforest Network in order to campaign for the protection the GBR. Bears were unproblematically enrolled as spokespeople for the forests through conservation biology, education, and activism. Other groups, however, required greater degrees of negotiation before they would accept roles in the emerging network. ENGOs managed to sever forestry companies from a key element of their network – their customers – in order to enrol them in activist networks. But forestry companies fought them every step of the way. Traditional enemies, it would take a great deal of negotiation and concessions to get the forestry companies on board. Similarly, First Nations rejected the roles ascribed to them by ENGOs. They may have had a degree of overlap in their interests in the land with environmentalists – particularly with respect to conservation – but these interests derived from very different sources. In particular, First Nations’ overriding concern was with title and rights. First Nations would not be spoken for but demanded to be in key decision-making roles.

This chapter examines the processes of negotiation involved in the enrolment of forestry companies and First Nations. A particular focus is on the shifts and changes these negotiations demanded on ENGOs. While my account thus far may seem

somewhat Machiavellian for the ways in which environmentalists worked to bend others to their own will, this chapter demonstrates how they had to let go of their control over this process (if they ever had it).<sup>25</sup> I will look at how ENGOs shifted their identity and their goals as they became associated with forestry companies and First Nations. I look at ENGOs' negotiations with forestry companies, the latter of whom had by this point adopted a new identity and set of interests more in line with environmentalists. As I detail, the negotiations entailed an exchange of properties between ENGOs and forestry companies as they become associated in a new hybrid group. Not only forestry companies, that is, but also environmentalists were required to shift their identity and interests.

The centrality of the ENGO-forestry industry coalition to the development of a new wilderness politics is registered through Michel Callon's (1986) concept of the "obligatory point of passage" (OPP). In Callon's terms, the OPP forms the centre of network formation. It is the point through which actors must pass in order to realize their interests. The OPP simultaneously hinders and facilitates the realization of interests for other groups since it puts itself in their way and suggests that they can only realize their interests by going through it. As I analyze below, the hybrid ENGO-forestry group became central for forestry communities, First Nations, and the Provincial Government. Yet, I show how these groups contested this process. In particular, I look at the turmoil that ENGOs and forestry companies' designation of the obligatory point of passage for

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<sup>25</sup> In this respect it is noteworthy that the process was not carried forward by any one person or group. Rather, as others became connected to the issues, the process became transformed. This is particularly evident in the fact that one of the originators of the campaign (McAllister – who himself took up the relay from those before him) became one of the most vocal critics of the eventual agreement.

other interests in the coastal forests caused among the public, environmentalists, forestry-dependent communities, the Provincial Government and First Nations. In particular, I examine the ways in which First Nations, as key critics of the new relationship between forestry companies and ENGOs, sought to translate the emerging network into *their* own interests. Concerned that they were not in rooms where decisions were being made about their territories, First Nations set out to turn members of the emerging network into their allies in their quest for recognition and control of their territories.

This analysis zeroes in on the evolution of the network's focus and how it shifted and expanded as ENGOs let go of their vision in order to let others take "ownership" of it. I conceive of the network's focus as a "matter of concern" (Latour, 2004). While environmentalists had earlier attempted to purify the networks they assembled into "nature," through the invocation of matters of fact in the CAD (such as the conservation requirements of grizzly bears), in this chapter I look at how the definition of the coastal forests remained open-ended and complex, and comprised of heterogeneous human and nonhuman elements. According to Latour (2004, p. 244), matters of concern are open-ended rather than indisputable, fabricated rather than discovered, produced by multiple groups rather than by experts alone, and include consequences rather than assuming that consequences (whether social, economic, political, or ecological) have no essential relation to the matter in question. As I show in this chapter, the GBR – which environmentalists had previously tried to close off as a fact – now opened up as a matter of concern that became articulated by environmentalists together with forestry companies, latter to be joined by First Nations.

## **6.1 *Negotiating With the Enemy***

As described in the last chapter, ENGOs “generated” a great deal of power in their dual role of co-spokesperson for the environment and “explicitator” of the commodity chain. However, ENGOs were not unchallenged during their European and American campaigns. The forestry industry and the BC Government flew delegations to Europe to refute claims being made about BC forest practices. Yet, wherever the delegations went, the ENGOs would follow protesting and handing out information. On the other hand, the Government also tagged along with ENGOs. As one activist notes,

I did a freedom of information request – actually David Boyd did it when he was working with UVic Law – and he somehow got this binder – it’s about this thick – that was all of the consulates and embassy people and CSIS that were actually privately, or secretly following me around from presentation to presentation, and doing full critiques of my talks. [E – JN: 042]

Nevertheless, the forestry companies came to realize that they were unlikely to counter ENGOs’ campaigns through this trade mission approach. As noted by an industry representative,

people had been out there spending a lot of money, a lot of resources, talking to customers, making trips to Europe, bringing customers over, going down to the United States, doing the regular, kind of, “PR” stuff and it was clear that it wasn’t, you know, that it wasn’t working. [F – QB: 016]



In response, the Chief Operating Officer of MacMillan Bloedel convened a series of weekly meetings for coastal BC forestry companies in April 1999 (Stansbury, 2000). The purpose of the informal meetings was to develop a common approach among affected forest companies to deal with ENGO's market campaign. In June of 1999, a caucus was formed out of WFP, Interfor, Weyerhaeuser (formerly MacMillan Bloedel), Canfor, Norske Canada (now Catalyst Paper), and West Fraser "to develop and manage [a] more coordinated industry strategy moving forward" (Coady et al., 2003). After Home Depot's announcement of their new procurement policy and the German association's demands, this idea was given impetus and, in January 2000, the industry caucus created the Coast Forest Conservation Initiative (CFCI).

The forestry companies created this initiative because of the intervention of environmentalists between them and their customers. Since ENGOs had successfully enrolled retail customers through their explicitation of the commodity chain and spectre of consumer boycott, forestry companies had to transform themselves into a suitably environmental identity if they were to retain customers. The companies thereby self-enrolled in environmentalists' networks, translating themselves to say, in effect, "we're environmentalists too." As noted by one interviewee, "CFCI's strategy from day one has been – not from day one, but early one – has been to capture the stage, the high ground, so that they could say they were more, or as, ecosystem conscious and EBM conscious as any environmentalist" [C – BH: 152].

The Initiative also involved the formation of a space to negotiate with the ENGOs. According to one of the participants, "we formed a caucus of the companies, to see if we could work as a caucus. And we wrote up an internal paper for the companies

about a kind of a standstill” [F – MD: 068]. This “standstill” period would be defined by an agreement in which companies would agree to defer logging if ENGOs agreed to suspend their market campaign. In this conflict-free zone, companies and ENGOs would negotiate a permanent agreement.<sup>26</sup>

Negotiations began as acrimoniously as can be expected, given a history of conflict stretching back to the fight over South Moresby Island on Haida Gwaii (Queen Charlotte Islands) and Clayoquot Sound – not to mention more recent conflicts over the central and north coasts – that was not easily overcome. The relationship between ENGOs and forestry companies, after all, had been institutionalized as war – the war in the woods. One of the main negotiators for the ENGOs described negotiations as a violent conflict:

[Industry said] “okay, we’ll sit down and try to figure things out,” but, at that point in ’99 we would sit down and have conversations and I used to describe it as, you know, we would go in there with our Plexiglas riot gear in front of us and put it down and shoot bullets across the table. And, you know, they would have their Plexiglas up and all the bullets would fall down, and then we would put up ours and they would put theirs down and shoot at us and all the bullets would fall on the table. That’s what our conversations were like, nobody was listening to each other. It was so hostile and people hated each other. Like, they didn’t even know each other to hate each other, we hated each other’s positions, we hated each other’s sectors, and it was deep, you know, Haida Gwaii, Clayoquot Sound, it was all kind of built up to this where both parties just detested each other. [E – NT: 118]

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<sup>26</sup> Individual negotiations between ENGOs and forestry companies had already begun. In February 1998, Interfor negotiated with ENGOs, agreeing to defer logging in several operating areas and to test variable retention logging at one site, in return for ENGOs’ participation in the LRMP and their agreement to not oppose activities in three less contentious areas. While an agreement was reached in July 1998, a similar agreement with WFP took longer to achieve. By March of 1999, the Sierra Club of BC and Greenpeace agreed to participate in the LRMP.

The opposition between ecology and economy was nowhere as pronounced as in this room.<sup>27</sup> Two “sectors” or “positions” squared off against one another, each trying to destroy the other. Each was a caricature for the other: for environmentalists, forestry companies wanted to wilfully destroy ecosystems in order to enrich themselves; for forestry companies, environmentalists wanted to put people out of work to feel good about themselves. They “hated” each other: there was a clear boundary between their positions, as clear and solid as a Plexiglas shield. None of what environmentalists wanted was in forestry companies and vice versa. They were as different from each other as two groups can get. Despite (or even because of) the networks linking ecology and economy that environmentalists had traced, their goal was to enforce a strict boundary between the forests and the forestry companies. This boundary became blurred, however, with a shift in the environmentalists’ strategy.

We started doing this thing called a “love strategy” where we would walk into rooms with people who we traditionally had called enemies – like, the forest industry who were cutting down our friends, the trees – and we would walk in and we would try to find the one thing in them that we could love and nurture and support and help that part of them make the right decision. [E - KI1: 034]

If before the environmentalists saw forestry company CEOs as only positions or sectors with singular views inimical to their own, they came to see them as more complex. Rather than standing in as a synecdoche for the evil forestry industry, the individuals with whom environmentalists negotiated came to be seen as beings with

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<sup>27</sup> In fact, at one point early in the negotiations the facilitator simply left the room, letting the parties yell at each other with no expectation that anything constructive would come of it.

potential qualities that one could connect to and thus nurture. This change in approach not only sought to bring useful parts out of forestry company officials, but to honour and validate those parts, thus exercising the “compassion” instilled in the Hollyhock training sessions:

We used to come up the elevator and go, “Okay, so we’ve got to love them, we have to love them, we have to love them. . .” We’d go up the elevator and we’d do that, a lot of it came from here [referring to Hollyhock], right? Crazy, flaky, weirdo shit – whatever – but it’s really a piece of the story, it really defines what happened, coming out the other end.” [E - KI1: 034]

According to this participant, the impact of this shift was originally unintended.

But the interesting thing is, so, we’re now in this love strategy piece and we’re all about bringing the best of people to the table and trying, ourselves, to model it, but also creating space for other people, and they don’t know that’s what we’re doing, they’re just having the experience of whatever it is that we are doing. And they’re all kind of freaked out because they don’t know what to make of us because we’re so young and we don’t negotiate the way they have all be trained to negotiate, and nothing is making sense whatsoever, basically. And they’re just constantly sort of, slightly, “What are they coming up with next?” kind of thing. And for two years, I think, we made huge gains just by virtue of the fact that they were just off balance, they just couldn’t figure out where we were coming from, and they didn’t understand this whole love thing. [E - KI1: 034]

Love involves a form of empathy which, in turn, entails a degree of commonality or sharing. When these environmentalists practiced the “love strategy,” they began to identify and empathize with forestry company representatives. They therefore put down their Plexiglas shields to breach the boundary between them. This must indeed have been

a confusing experience for forestry companies. However, eventually the forestry company representatives

kind of got it. And not that they got it at some language level, or that there was words around it or anything, but they all of a sudden got that we weren't interested in being enemies anymore, but what we were interested in doing was finding solutions together. [E – KI: 046]

The basic strategy was to listen and to acknowledge the obstacles facing the forestry industry and to try to craft a framework that would solve them: “The love strategy was more, exactly that, let’s go sit down and listen to them. Find out what their problems are and how we can solve them” [E – NT: 308]. With the boundary between them blurred, forestry companies’ problems became environmentalists’ problems – a prerequisite for “finding solutions together.”

Out of these negotiations, the two sides produced a “standstill agreement”<sup>28</sup> specified in a *Letter of Intent* (LOI) (Joint Solutions Project, 2000),<sup>29</sup> which simultaneously specified the new relationship between ENGOs and forestry companies, and positioned them as an obligatory point of passage for groups with an interest in BC’s

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<sup>28</sup> ENGOs party to the agreement included: Coastal Rainforest Coalition Rainforest Action Network, Natural Resources Defense Council, Greenpeace International, Greenpeace Canada, and Sierra Club of British Columbia. Forestry companies party to the agreement included: Canadian Forest Products, Fletcher Challenge Canada, International Forest Products, West Fraser Timber, Western Forest Products, and Weyerhaeuser

<sup>29</sup> The LOI went through several drafts, with the final, unsigned draft dated March 31, 2000. It is difficult to say what changes were made to the draft after a March 2 version was leaked to the media around March 15, but many of the main elements were in place as confirmed by details reported in news stories on March 16 (Hamilton, 2000; Hume, 2000; Lee, 2000).

coastal forests. The first task was to create some space in which these new relationships could be established. According to the document, the purpose of the agreement was to:

establish a conflict free period within which the parties can work collaboratively on developing recommendations with the provincial government, First Nations, and stakeholders on a conservation-biology/ecosystem-based plan for the north and central coast, including recommendations on protected areas. (Joint Solutions Project, 2000, p. 4)

Why did the parties feel that they needed to create a “space” or forum in which to discuss land use options for coastal BC? Wasn’t there an already existing forum tasked with precisely that purpose – the multistakeholder Central Coast Land Resource Management Plan (CCLRMP)? The problem with the latter forum, as described in Chapter 5, was its “cookie-cutter” approach to land use planning. While it was a public forum that considered multiple interests, the LRMP was unable to create the kind of space that was needed to come up with truly innovative solutions. Instead, the LRMP actually served to reinforce oppositional positions rather than facilitate compromise. For example,

In the big public arena, they’re [the union] not going to admit that they’ve got to change anyways, but we could sit down and have a meeting with the IWA [Industrial Wood and Allied Workers of Canada] and say, “Look, the writing is on the wall, like there aren’t any trees left for you on Vancouver Island. Your industry has to change, your union has to change, right?” They knew that, but they would never, the way the LRMP was set up, it was set up, in spite of what I think people wanted, it was just set up where people took positions because in a public space like that with the Government recording it, they’re not going to admit to certain things. You need to create a space where people can admit to that or, maybe not even admit to it, but find a solution around it. [E – NT: 146]

In BC, the modern constitution played out in a “big public arena”: the agora. This is where politics were performed, but it was unwieldy due to the way in which it turned

groups into inflexible positions. This is where the war in the woods and its “trees versus jobs” dynamic played out. With the Government recording these positions and judging winners and losers (within a balance or trade-off framework), divisions became stark. How could the divisions be softened? How could common solutions be forged? A new “space” outside the agora needed to be crafted. The first task was to remove the scorekeeper, the Provincial Government:

we’re sitting down *without* the Provincial Government, who, generally speaking, are an anchor in all these processes, they just drag on you and stop you from doing innovative things. They are very risk adverse. So we got them out of the room, and all of a sudden we are having really interesting conversation, we’re coming up with new, neat things. [E - K11: 114]

Thus, the political space became displaced from the agora to ENGOs’ and forestry companies’ 18-month “conflict-free” period. Forestry companies agreed not to log or build roads in a list of valleys submitted by ENGOs,<sup>30</sup> so as to “maintain the full range of land use options in those key ecological areas identified in this Letter of Intent” (Joint Solutions Project, 2000, p. 4). In turn, ENGOs agreed to “suspend” their international market campaign targeting the companies, so as to “maintain continuity of business/operations” (Joint Solutions Project, p. 4). This was a serious agreement on behalf of forestry companies, who agreed not only to voluntarily withhold logging operations in the contentious areas, but also to do so even in the face of pressure to log those areas. The ENGOs’ side of the agreement was similarly substantial since, not only

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<sup>30</sup> The break down of number of valleys by company is as follows: Interfor, 25; West Fraser, 20; WFP, 28; Weyerhaeuser, 5. There were also 22 valleys included in the standstill that were not allocated to any company at the time. The total number of included valleys equals 104.

had they waged an effective market campaign to date, but they had another prong of that campaign – a western red cedar campaign – ready to launch.<sup>31</sup>

Second, the LOI specified new relationships, thereby creating a new, hybrid grouping made up of former enemies that had chosen to work together to forge new solutions for land management in coastal BC. Why had they chosen to work together? As the LOI states, “Participating ENGOs and Companies both recognize the need to reconsider the approaches they have traditionally pursued with regards to issues/conflicts between them” (Joint Solutions Project, 2000, p. 7). But what prompted this recognition? According to one environmentalist, “it was a “Mexican stand-off” [...] it was just the point where everybody was all, ‘Okay, well we can just all just keep doing what we’re doing,’ [Laughter] [...], ‘or we could try to, kind of, invent a slightly different model here that, you know, takes a little bit from all of what we’re doing’” [F – MD: 066].

The ‘Mexican standoff’ model is one that pits ecology against economy. It is a zero-sum conflict. There is no possibility for movement, since the two sides are evenly balanced. The recognition of this undesirable state of affairs was a key moment of transition for BC wilderness politics. Both sides agreed that they needed to “reconsider the approaches” they had used up to that point. If these approaches can be characterized as the position-taking in the agora and the maelstrom of bullets in the negotiating room, then we can say that these approaches helped to reproduce the modern constitution. The interests of conservation opposed the interests of development.

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<sup>31</sup> However, neither forestry companies nor ENGOs gave up everything. ENGOs were able to maintain their overall “Ancient Forests” campaign, so long as they did not specifically target the companies party to the agreement vis-à-vis their geographical area of operation (coastal BC). On the other hand, forestry companies required that ENGOs not protest forestry companies’ operations in less contentious areas.



By contrast, the parties suggested the value of creating a new model. Importantly, this model would be developed by taking “a little bit from all of what we’re doing.” That is, the model was not to be imported from elsewhere, it was not about the imposition of one side on the other, it was not even about a balance, but it was about selecting elements from each party and articulating them together in a new network. This process began through an exchange of elements between ENGOs and forestry companies. Both sides had to give something up that was important to their identity. For their part, “Participating Companies acknowledge that cuts on the north and central coast will be coming down” (Joint Solutions Project, 2000, p. 7). On the other side, “Participating ENGOs acknowledge that completion of an acceptable “conservation-biology/ecosystem-based plan” will not necessarily require that all areas within the Standstill Arrangement be formally protected” (Joint Solutions Project, p. 7). Once they had made these concessions, both parties agreed to accept an element from the other. “Participating Companies acknowledge that the Central and North Coast contains unique areas of forests and forest dwelling species (Kermode bear, Grizzly) and enjoys a global status in terms of environmental values” (Joint Solutions Project, 2000, p.7). On the other hand, “Participating ENGOs recognize that Participating Companies have substantial degrees of investment at risk in this process and that sustainable forestry will continue to play a role in the region” (Joint Solutions Project, 2000, p 8).

As a result of this new connection between them, participating ENGOs were no longer concerned solely about absolute protection of “pristine wilderness,” and industry was no longer focused solely on maximal extraction of merchantable fibre. They were no longer ‘positions’ firing rhetorical bullets at one another. Now, participating ENGOs’

interests included sustainable forestry, while the industry's interests included unique species and environmental values. ENGOs and forestry companies created a new hybrid entity formed out of the blending of environmentalist and industry interests.

This hybrid ENGO-forestry company group (later named the "Joint Solutions Project") became an obligatory point of passage for other interests in the coastal forests. Together, environmentalists and forestry companies defined other relevant groups, their interests, and how these interests should be met, as can be seen in the section labelled "Background" (in subsequent versions labelled as "premises"):

1. Coastal forests of the north and central coast are ecologically significant in a local, regional, and global context.
2. The coastal forests of BC are the traditional territory of First Nations and are culturally, economically, environmentally and socially significant to the First Nations people of the coast.
3. This agreement is without prejudice to aboriginal rights and aboriginal title.
4. Coastal forests of north and central coast are socially and economically significant in a local and regional context. (Joint Solutions Project, 2000, p. 10)

Different (generic) groups of people at different local, regional, and global locations are recognized as having both ecological and economic interests in the forests. Luckily for them, the plan that ENGOs and industry are about to develop will help these groups realize their interests. Additionally, the forests are recognized as being of special importance to First Nations, who have their own unique cultural, economic, environmental, and social interests. Luckily for them, the ENGO-industry agreement does not "prejudice [...] aboriginal rights and title" and will thus not infringe on them. Moreover, not only will all of these different interests be met, but also they will be reconciled in the ENGO-industry conservation-biology/ecosystem-based plan, since,

according to the LOI, “5. Strong environmental protection, a strong economy, and a strong social fabric are directly linked” (Joint Solutions Project, 2000, p. 10). Of course, the document implies that these interests will only be accommodated and reconciled if they go through the joint group’s plan for the region. The plan thereby forms the centre of an emerging network.

## ***6.2 Developing a Common Matter of Concern***

The conservation-biology/ecosystem-based plan proposed in the LOI is the result of environmentalists and forestry companies coming together in a new political space to forge common solutions. The first part of the plan comes from ENGOs and their preference for conservation biology. The second part comes from the forestry industry’s experience with ecosystem-based management. The first focuses on how to protect biodiversity from human use, the second on how to ensure that human use does not destroy ecosystems. Yet, both would undergo a change as a plan was created that focused on both ecological protection and forestry practice. In particular, the plan would tie forestry practice to biological conservation and tie both to “social, cultural and economic needs”:

With regards to the conservation/ecosystem planning component of the Planning Framework, Participating Companies and ENGOs will develop an approach to forest planning designed to achieve conservation of biodiversity as a primary forest management objective, and agree that a plan to do this must be based on the following core principles:

- a) It must involve input from internationally recognized scientists and other relevant authorities.
- b) It must focus on protection of habitat for fish and wildlife.
- c) It must sustain natural forest characteristics.
- d) AAC [Annual Allowable Cut] will be an output of planning, not an input.
- e) It must adopt a precautionary approach.
- f) It must involve adaptive management.
- g) It must be based on the use of harvesting techniques that emphasize low environmental impact and high timber value.
- h) It must address the social, cultural and economic needs of First Nations and local communities and provide a basis for economic stability and diversification. (Joint Solutions Project, 2000, p. 11)

The solution presented does not purify the elements of the coastal forests into nature and society, for example by creating non-economic zones for protecting biodiversity from industrial development, on the one hand, and economic zones to support industrial development through forest management on the other. Rather, the solution explicitly mixes humans and nonhumans in an effort to “achieve conservation of biodiversity as a primary forest management objective.” That is, forest management changes its focus from maximizing economic returns (within the “limits\$” of sustainability) to a focus on maximizing biodiversity while also focusing on extractive activities. Additionally, point h) is a rather new one for both conservation biology and the ecosystem approach to forestry management. For example, the CAD reviewed in the last chapter specifically excluded social, cultural, and economic issues to focus exclusively on biology and ecology. While acknowledging that “biodiversity may have economic and social values that are considerable and should be accounted for in management decisions” (Jeo et al., 1999, p. 18), the authors of the CAD nevertheless suggest that it is more important to focus on the science first, which can thereafter be placed in the “hands of First Nations, local people, environmental organizations, forest

industry, and government representatives” (Jeo et al., p. 69). Indeed, this was viewed as a “particular strength of the CAD – it is a western science based statement made independent of specific economic or political interests” (Jeo et al., p. 12).

The CAD seeks to determine the facts free from the distorting influence of politics. It wants to speak only about nature, to shelter it from destructive human activities, to defend nature for nature’s sake,<sup>32</sup> and to describe the systems of nature as revealed through conservation biology (c.f. Latour, 2004, pp. 20-21). However, according to one environmentalist, this attempt to purify science from politics, the natural from the social was a failing of the project:

Because we were a little slow and we weren’t kind of, like, really all over it [in the CAD], we did the piece around, “how do we do all the ecological stuff? How do we put the things together for the grizzly bears?” We didn’t do the piece around, “how do you talk to human communities and figure out how everybody else fits in the picture?” because, we didn’t have the skills sets, that wasn’t who was in the room, there were a lot us who were just scientists and pretty blinkered in their vision.” [E - K11: 012]

This quotation suggests that there are not two, separable processes (science and politics) pertaining to two separate ontological realities (nature and society) but a single “picture” made up of a heterogeneous list of actors – ecological “stuff,” grizzly bears, human communities and “everybody else.” The conservation project, thus, cannot speak only about nature, but must take this heterogeneous association of beings into account: for example, you must “talk to human communities.” The goal is not simply to protect nature from people, but to figure out how everything and everybody “fit” together.

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<sup>32</sup> As the authors (Jeo et al., 1999) note, “a key assumption we make in developing this conservation area design is that the protection and restoration of biodiversity has intrinsic value and is generally good” (p. 18).

Moreover, given the large list of actors, it is not at all clear for whose sake nature should be protected: can this project proceed simply on the basis of the “intrinsic value” of biodiversity, or do other values have to be taken into account? Finally, this project cannot be led “only by scientists” who seek to uncover the systems of nature through conservation biology, but everything and everyone else who are part of the picture (or those who represent them) need to be “in the room.”

While the CAD sought to define the conservation requirements of the coastal forests as a “matter of fact,” free from the distorting bias of political, economic, social, or cultural considerations, ENGOs and forestry companies together began to form what Latour (2004) refers to as a “matter of concern.” In contrast to matters of fact, matters of concern “have no clear boundaries, no well-defined essences, no sharp separation between their own hard kernel and their environment” (Latour, p. 24). Matters of concern are not out there waiting to be discovered by scientists, but have a historicity tied to their articulation by concerned parties. Thus, in the conservation-biology/ecosystem-based plan described above, biodiversity is not represented as an existing reality that can be maintained through exclusion of particular forest uses. By contrast, the conservation of biodiversity is depicted as something that must be “achieved” through a plan.

There are other features of the plan that differentiate it from attempts to define the “facts.” The plan does not have clear boundaries but is situated in a network yet to be produced. This network is composed of things like “forest characteristics” and “habitat fish and wildlife,” but also “AAC” (annual allowable cut) and “harvesting techniques,” and “social, cultural and economic needs.” It thus does not pertain to “the social or political world on one side and the world of objectivity and profitability on the other”

(Latour, 2004, p. 24). While this network will be investigated by “internationally recognized scientists and other relevant authorities,” it will not be defined by them exclusively; rather, they are only one group who will provide “input,” and the process of investigation will be open and controversial. Finally, in contrast to matters of fact, Latour (2004) notes, “everyone paradoxically expects the unexpected consequences that [matters of concern] will not fail to produce – consequences that properly belong to them” (p. 24). The planning framework takes account of the inevitability of unexpected consequences with its specification of the need for a precautionary approach and adaptive management.

The shift from efforts to collect scientific facts in support of campaigns to protect nature from people to a matter of concern that sought to simultaneously address the interests of humans and nonhumans was a big shift for ENGOS. The original attempt to shift the BC environmental movement towards a comprehensive conservation strategy for the central and north coasts succeeded, but at the cost of another, unexpected shift. Now that the ENGOS had the forestry companies right where they wanted them, under a giant hammer in the form of the market campaign, the negotiators were engaging in a “love strategy,” seeking to define joint solutions with industry! Here they had the chance and the “responsibility to all inhabitants of this planet, present and future, to set aside self-sustaining areas of temperate rainforest as wilderness, forever” (WCWC, 1992) and thus put into practice the realization of one of the key negotiators, who was saying that “our [...] basic conception of wilderness, that it’s a place untouched by humans, is really wrong” (Berman as cited in *The National*, June 16, 1999).

This shift caused a big rift in the BC environmental movement (one that continues today) and the explosion of the Canadian Rainforest Network.

So now we're in this, sort of, interesting solutions sort of realm with industry, and we're not yelling across the table at them. We're actually coming in and we're jointly proposing ideas and they're not dumb ideas, they're great ideas because now we have the diversity of our kind of 2 vantage points coming up with ideas, and we've created the safe space to *really* explore cool ideas. Which is freaking a few people out because they're like, "Okay, something's really screwy here, they are not supposed to be in bed together, they are *so* not supposed to be in bed together." And, you know, people within the environmental movement are freaked out about it because they're going, "You guys are the sell outs," and it was all bad news [E - KI1: 052]

According to one critical environmentalist, the negotiators "started suffering from Stockholm Syndrome [and, as a result,] lost our vision [which,] in a nutshell, is to protect all of the intact valleys in the Great Bear" [E – JN: 104-132]. Due to internal conflict associated with the negotiators' approach, "the Canadian Rainforest Network blew up, politics killed it" [E - KI1: 018]. However, this led to the establishment of a new group, eventually coming to be known as the Rainforest Solutions Project (RSP).

But, what had happened as a result of all of that [internal conflict], was that we had sort of three or four individuals as part of that coalition who had really, really gotten to know each other well, had build trust together, had great working relationships, and wanted to keep working together because they were like, "This is way more fun than working internally in our own individual organizations. We actually, like, there's zing here." [E - KI1: 018]

The four individuals – Merran Smith from Sierra BC, Tzeporah Berman from the Coast Rainforest Coalition (soon to become ForestEthics), Karen Mahon of Greenpeace and Jody Holmes of BC Wild – worked together to develop their own "vision" for the



central and north coasts. This vision developed and translated one of the multiple and conflicting visions contained within the CRN. As noted in Chapter 5, the CRN recognized the need for and importance of economic opportunities in the central and north coasts, particularly for the communities that reside there. It was particularly this latter strand that was developed in this new group's vision.

There was a year of kind of like the, there was no Canadian Rainforest Network, and there was no, sort of, what we now work for, which is the Rainforest Solutions Project, wherein, that group, that core group of good friends, basically all spent their time talking to big funders saying, "We have this dream, we have this vision of how it could be and it's so different from anything we have ever done before 'cause we have to integrate people into it, we have to build conservation economies, there has to be money associated with this that is about taking care of the people, it's not just about protected areas, it's not just about you get your big conservation wins and you walk away from this and then it basically falls apart." [E - KI1: 018]

The group was successful in obtaining funds (\$1 million from the Packard Foundation) for this vision, more precisely defined as:

this network of protected areas and really amazing, sort of forest practices in the intervening spaces so that you really were maintaining ecological integrity over time. [And] a conservation economy that was looking after local communities where they were actually healthy and sane and able to take care of themselves and basically had self-governance. It was about that simple. Really, it wasn't any more complicated than that, it wasn't any more sophisticated than that at some level. [E - KI1: 030]

This plan may not have seemed very complicated or sophisticated, but considering all the work that led up to it, it was no small feat. Both the coastal forests and environmentalists had undergone huge transformations. First, there was the

“Forgotten Coast” and indifferent environmentalists. Then there was the coastal temperate rainforest and interested environmentalists. Then there was the Great Bear Rainforest and an international coalition of environmentalists. Then there was the commodity chain and a major campaign win. Then the coalition blew up: the environmental movement was translated again, and so was the GBR. Now a small group of environmentalists shifted from attempts to close debate with the facts of nature to keeping it open with a matter of concern. The land in question was no longer treated as a given, nonhuman reality that should be protected from humans, but as an open question about how humans and nonhumans should associate with one another. This was neither a simple transformation nor a simple task. Rather than attempting to protect something that already existed, environmentalists, together with their new forestry company colleagues, had to create an entire new network. To do so, they had to convince others to accept the new roles that they had assigned for them.

### ***6.3 Enrolling Others in the Matter of Concern***

According to Callon (1986), it is one thing to define (or “problematize”) the interests and identity of elements that one wishes to associate in a network, and another for those elements to accept such definitions, and thereby become successfully “enrolled.” This is not an easy task. Just as other environmentalists were critical of the group’s development of this vision together with forestry companies, so were other groups. These groups contested the terms of their incorporation, particularly the fact that

they were not “in the room” to represent their own interests. The ensuing controversy resulted in interesting processes of group formation and translation among local communities, First Nations, the Provincial Government, and the CFCI-ENGO group itself as these other actors sought to reject or transform the terms of the emerging network. In the following, I describe these groups’ reactions to the ENGO-forestry company OPP, and the conditions that would have to be met for their inclusion in the network.

When they learned of the LOI (which was leaked to the news media), the Industrial Wood and Allied Workers of Canada (IWA), North island communities, First Nations, and the Provincial Government were very upset.<sup>33</sup> For example, “In a March 9 letter to Forests Minister Jim Doyle, the union [IWA] says the deal would lead to ‘the loss of employment for many IWA members and First Nations people who work in the area and the Lower Mainland’” (Hamilton, 2000). Beyond concern about immediate impacts to employment, the primary criticism was that two unelected groups – ENGOs and forestry companies – were meeting “in secret” (Hamilton, 2000; Hume, 2000; Lee, 2000) to make decisions about public and/or First Nations’ land. “In 2000, everybody was up in arms, because it was like, ‘You guys are making decisions, you shouldn’t be in control.’ The Government was just as pissed off at us as everybody else” [E – NT: 234]. According to the Union of British Columbia Mayors’ *Task Force Report on CFCI*

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<sup>33</sup> Their anger contains a degree of irony, since these groups helped to establish the joint ENGO-CFCI group in the first place when, in 1998, they asked ENGOs and forestry companies to negotiate and resolve their disputes over logging moratoriums due to concerns that the LRMP was making little headway and would be deemed illegitimate without the participation of ENGOs. However, they did not know that their request about moratoria would be translated into a project to radically restructure land use and management.

(UBCM Task Force on CFCI, 2000), “it was particularly concerning that two parties, through closed-door negotiations, were attempting to make land use decisions on Crown land when a provincially sanctioned land use planning process was underway” (p. 1). In addition, “First Nations were not happy. [...] They saw this as being, again, meddling, with their rights and territories, who – no one was going to tell them how the forest was going to be managed” [F – NC: 103].

These groups reacted to the creation of a new political space outside of the LRMP. The latter was deemed to be legitimate and democratic, the former illegitimate and “secret.” However, environmentalists and forestry companies had experimented with new approaches to wilderness politics that were not possible in the agora of the LRMP. Thus, the challenge for them was not to create plans in secret, but to create plans that also created a new political space which included others. They had to recreate politics in order to shift from the modern constitution to the collective. Different groups had different reactions to this goal.

The Provincial Government responded by stating in a letter dated May 19, 2000 (quoted in UBCM Task Force on CFCI, 2000) that the “Government’s role in this issue is to ensure an open democratic decision process that will protect markets, communities, and the environment” and that the Government “cannot endorse a process that does not include all stakeholders, particularly First Nations.” However, the letter did suggest at least tacit support for the process, which it recognized as being the result of ENGOs’ market campaign in combination with a slow LRMP process (MacLennan, 2000), stating that “Government, however, is prepared to assist the parties in further discussions that

would result in their returning to the LRMP table.” A comment made by Graem Wells, the Chair of the CCLRMP, represents the Governments’ perspective:

In order for the CFCI/ENGO initiative to work, there needs to be buy-in from all the parties. The model that has been discussed in terms of the Central Coast LRMP being the parent of this process and the place where land use decisions are made, is the proper one in his view. The technical and scientific work needs to be a subset of the LRMP process (summarized in Dovetail Consulting, 2000c).

Forestry workers and North island mayors were more confrontational, even going so far as attempting to launch a short-lived counter-campaign termed “Operation Defend.”<sup>34</sup> As stated in an op-ed in the Courier Islander (2000): “The Truck Loggers Association has an interesting idea. They are proposing to start a public relations battle in support of B.C. forest products and in opposition of the Coast Forest Conservation Initiative (CFCI).” A workshop organized by Port McNeil Mayor Gerry Furney was held in support of this initiative on September 22, 2000. According to WCWC (2000), “an August 24, 2000 information package was mailed to various B.C. mayors, councillors, and community leaders asking them to join together to fight the ‘current campaign by the extremist enviro-elite.’”

The response of First Nations is captured by a sentiment expressed by Caunie Saunders of the Nuxalk Nation stating:

First Nations are not involved in the direct planning; nor are they provided meaningful consultation. The Nuxalk Nation cannot support the CFCI/ENGO initiative without full participation of First Nations throughout the planning stages. Going behind closed doors to negotiate agreements between industry and

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<sup>34</sup> While this campaign requested multi-millions from the provincial government to fund this campaign, the request was not granted and the campaign never got off the ground.

environmental groups was not acceptable. [...] First Nations want to be involved directly in the planning process (summarized in Dovetail Consulting, 2000c).

Similarly, Dan Smith of the Kwakiutl Laich-Kwil-Tach Nations Society stated that “the basic principle of justice for First Nations in their territories needs to be honoured through meaningful involvement in land use and management [...] There are lessons to be learned from First Nations about finding solutions to the current conflicts and resource scarcities, problems that the First Nations did not create” (summarized in Dovetail Consulting, 2000c).

The reaction of the Provincial Government was to fold the Initiative back into the LRMP, but this was unlikely for all the reasons given above. The reaction of local communities in the form of Operation Defend was to destroy the Initiative by launching a public relations campaign against environmentalists. This was unlikely as well, since environmentalists had already enrolled the international market and forestry companies in their project. Reactions from First Nations were different. They had also boycotted the LRMP and were thus less concerned about the affront to democracy that the Initiative represented. For First Nations, this was a problematic democracy that recognized them merely as one stakeholder among many. Their central concern was recognition of their rights to make decisions over and benefit from uses of their traditional territories. For them, it didn't really matter which table was discussing land use; what mattered was to be at that table, making decisions.

In fact, the development of a potentially new political space provided First Nations with an opportunity to engage more fully in decisions about their territories. To

make this possibility a reality, leaders of First Nations on the central and north coasts and Haida Gwaii (Queen Charlotte Islands) came together at five meetings throughout 2000<sup>35</sup> in order to forge a coast-wide group. The purpose of the group was to address common issues, such as unemployment and lack of access to resources in traditional territories. More importantly, the group was established to ensure that First Nations were “in the room” in which land use planning was taking place.<sup>36</sup>

Our first task, when we came together, was to recognize that we aren't in a room, and, ah, we better position ourselves to get into a particular room that met our kind of interest better, all right. And, to that end, we had a series of bilateral meetings with forest company presidents, with the Truck/Loggers Association, with the union, and with the enviros, all bilaterals, just, and said, “Look it, we have some interests here, and we want to hear what your interests are, and see if we can come together.” [FN – HX: 028]

This process of different interests “coming together” was facilitated by the ENGO-forestry industry OPP. But it meant that the interests were changed and transformed by the encounter. Identities are relational. Local communities strengthened their identity in opposition to the Initiative (with Operation Defend) and the Provincial Government tried to maintain its identity as the legitimate forum for political decision-making. First Nations used the opportunity to strengthen an aspect of their identity by creating a unified group to engage with other interests. Moreover, the furore surrounding the proposal prompted important changes to the nascent ENGO-CFCI group's make-up,

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<sup>35</sup> At the David Suzuki Foundation which provided funding.

<sup>36</sup> In June, 2000, eight coastal First Nations signed the “Declaration of First Nations of the North Pacific Coast” (Turning Point, 2000), committing them to work together to address the above issues. The First Nations are: Council of the Haida Nation (Old Massett and Skidegate Councils), Gitga'at First Nation (Hartley Bay), Haisla Nation (Kitamaat Village), Heiltsuk Nation (Bella Bella), Kitasoo/Xaixais First Nation (Klemtu), and Metlakatla First Nation.

process, and self-definition. The CFCI lost two of its members when West Fraser Timber announced that it was selling its coastal tenures and Interfor announced that it was leaving the group to deal directly with customers and stakeholders. In turn, this prompted Greenpeace to leave the grouping in order to re-establish its campaign against Interfor, which included familiar tactics such as climbing on top of equipment and unfurling a banner at Interfor's Fraser Valley sawmill (Stueck, 2000). According to Linda Coady (2002), "maintaining internal social license necessary to maintain cease-fire agreement (i.e. conflict-free period) became very difficult once splits emerged in both caucuses & some companies and ENGOs exited the alliance & began to challenge it" (p. 36). However, the strength of the hybrid coalition was demonstrated by the resolve of the remaining ENGOs and forestry companies to continue their project and by efforts on both sides to bring Interfor and Greenpeace back into the grouping (CFCI, 2001; Sierra Club et al., 2001). Moreover, the backlash actually served to *strengthen* the coalition:

This was probably the first time – all of a sudden the companies and the ENGOs actually had an issue where they had more in common than they didn't, had not in common. [The backlash] represented a common threat to both of them for different reasons [...]. Because for the companies, if they couldn't contain it, they knew that they were going to lose customers. And, for the ENGOs, if they couldn't contain it, they saw that they were going to possibly lose this progress that they just [made]. . . And so, this is where they actually, for the first time, began to collaborate around an issue. Like, actively collaborate [C – EK: 192].

Additionally, in response to the backlash, the ENGO-CFCI grouping began to carefully specify its identity as a "technical and scientific resource" rather than as a decision-making body (Dovetail Consulting, 2000a, p. 5). For example, in a workshop:



Linda [Coady] stated that the companies and environmental organizations involved in the initiative fully recognize that they are not the decision makers with respect to land use on the Central and North Coast of BC, but hope that whatever information or ideas that they are able to put together may help inform the decisions that lie ahead for other groups. (Dovetail Consulting, 2000c, p. 3)

While this framing tends towards the reproduction of a distinction between science and politics (similar in form to the distinction made in the CAD), it is clear that at this point ENGOs and forestry companies were just two groups among several others now gathered around a common matter of concern.<sup>37</sup>

Indeed, the ENGO-CFCI group positioned itself as a single “resource,” not only to assuage fears that they were making decisions behind closed doors, but because they no longer had control of the issue and were thus forced to take a tangent. Recognizing that they could not “go ahead without the support of the other groups,” the CFCI-ENGO initiative decided to “start again and change the direction” (Coady quoted in Gordon Hamilton, 2000). Their encounters with other groups thus prompted a translation of their project. In a joint release dated May 29, 2000, ENGOs and the CFCI apologized for creating concerns and said that they would spend the next 60 days consulting:

with affected logging contractors, workers, and communities to demonstrate how new approaches to ecosystem planning and conservation-based management can address the interests of all those with a stake in coastal forests, [in addition to working] with the provincial government and the Central Coast LRMP to develop a mechanism to link this initiative to the provincial land use planning framework (quoted in UBCM Task Force on CFCI, 2000).

In so doing, the ENGO-CFCI Initiative opened up the matter of concern even further. Matters of fact are supposed to be discovered by experts; other groups can later

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<sup>37</sup> This framing can be considered to be a strategic purification. See Eden et al. (2000).

debate what to do with their consequences. By contrast, matters of concern involve multiple groups, expert and lay, in the articulation of states of affairs. Criticism of an over-reliance on experts was made in a series of workshops (Dovetail Consulting, 2000a, p. 7, 2000c, 2000b, p. 3) convened to consult with others. For example, in one of the workshops:

Several participants spoke forcefully about their unease over reliance on experts. Based on their experience at the community level, empowerment and building on local skills and expertise is often a more successful approach. As one person put it, “instead of going to experts, I say, go back into the community and then you get a real genuine mandate... the keys are in the communities and not necessarily with the experts!” (Dovetail Consulting, 2000a, p. 9)

This was not to say that participants saw no value in science, however, or that they wanted to exclude science from these processes. Rather, the emphasis was on integrating different ways of taking things into account. Reinforcing similar points made by others,

one participant commented that the essential thing, along with being inclusive of all interests involved, is to have a collaborative research process established between the community development interests and the researchers. Local practitioners will need to engage with researchers to frame the appropriate questions, rather than trying to establish priorities in advance: “if we want to brainstorm deliverables fine; but defining the nature of the problem has to be done collaboratively through participatory action research.” (Dovetail Consulting, 2000b, p. 28)

The sentiments captured in these excerpts express dissatisfaction with the view that a select group of experts can alone determine the facts. Rather, all groups who have an interest in the issue must be involved in a “collaborative research process.” When experts “establish priorities in advance,” other groups are disempowered. Not only are

their unique skills and expertise not drawn on, but also research projects fail to “frame the appropriate questions.” This sentiment disrupts the fact/value distinction associated with the modern constitution.

In modernity, facts and values were to remain as separate as possible (Latour, 2004, p. 95). Various interest groups could debate their interests in political fora but scientists alone had the capacity for a “double rupture.” Drawing on Plato’s Allegory of the Cave, Latour (2004) argues that under the first rupture

the Philosopher, and later the Scientist, have to free themselves of the tyranny of the social dimension, public life, politics, subjective feelings, popular agitation – in short from the dark of the Cave – if they want to accede to truth. (p. 10)

However, under the second rupture:

The Scientist, once equipped with laws not made by human hands that he has just contemplated because he has succeeded in freeing himself from the prison of the social world, can go back into the Cave so as to bring order to it with incontestable findings that will silence the endless chatter of the ignorant mob. (p. 11)

As a result, experts “can make the mute world speak, tell the truth without being challenged [and] put an end to the interminable arguments through an incontestable form of authority that would stem from the things themselves” (Latour, p. 14). However, the groups consulted by JSP challenged this model. They did not want the experts to go out and determine facts that would tell everyone what they had to do. On the other hand, they did not suggest that everything should be left to political debate. Rather, they wanted to make sure that all relevant interests were involved in framing “appropriate”

questions in collaborative research. Relevance, appropriateness, and research are folded together in a way that folds together facts and values. Rather than leaving the determination of the common world up to experts and the determination of the common good up to non-experts in a public debate, they came to “take the question of the common good and that of the common world, values and facts, as a single, identical goal” (Latour, 2004, p. 94).

Latour (2004) suggests that the distinction between facts and values that supports the modern constitution can be replaced with another distinction that can support the collective – one between “taking into account” and “putting in order.” Rather than maintaining a divide between science and politics as in the modern constitution, all interested groups are involved in both processes. In the first procedure, interested parties work together to examine, research, and explore the common matter of concern that has their interest. In the second, the same parties find ways to reconcile the various elements in the world that they are collectively constructing. The period of consultation engaged in by the ENGO-CFCI Initiative brought to light other groups’ (particularly First Nations’) desires for a collective taking into account of the elements that ought to be part of the matter of concern. In the following, I will indicate some of the changes to the matter of concern that this entailed. In the next chapter, I will more specifically investigate the mechanisms invented by actors to put this matter of concern in order.

As a result of demands made by groups consulted, the CFCI-ENGO initiative (hereafter referred to as the Joint Solutions Project, or JSP, as it had been renamed by this point) was forced to admit other interests into their plan and, accordingly, release exclusive control over the plan. Thus, the matter of concern *itself* began to undergo

transformations. At a series of meetings collectively referred to as the “Meetings at the Met,”<sup>38</sup> the plan began to develop “additional dimensions to it and additional, kind of, meaning to it” [E - KI1: 034]. For example, while ENGOs’ campaigns and the LOI mentioned First Nations and their interests, “our original vision didn’t have a strong piece for First Nations as the ultimate thing, they came, and their vision was control” [E – NT: 106]. In order for First Nations to become enrolled in the network, their interests needed to be taken into account and articulated with the framework that ENGOs and forestry companies were developing. Not only did this influence the framework, but also it influenced First Nations’ relationship to other groups, including the Provincial Government, and their role in land use planning. As one participant suggests:

I think one of the most significant things that came out of those meetings was that a decision had been taken internally within JSP where part of their message was that the purpose of the LRMPs and the purpose of these negotiations were to come up with recommendations that could then be dealt with in Government-to-Government context. [C – EK: 206]

From the perspective of ENGOs, this process involved the addition of a number of different interests onto their interest in conservation. As one of the environmentalists notes:

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<sup>38</sup> The name is in reference to the Metropolitan Hotel in Vancouver where they took place. The meetings involved both small meetings between ENGOs, forestry companies and First Nations, larger meetings between those groups in addition to labour and communities, and side meetings. The Provincial Government sent a representative to observe the meetings, but was not invited to participate, since “the Meeting at the Met were us stepping outside the Government and just saying we’re going to do it ourselves” [MS – 130].

we had our conservation vision at the core and then we added on [support for] Government-to-Government [negotiations], which is what First Nations wanted, and worker transition, which is what industry needed and the communities needed, and dah, dah, dah.” [E – NT: 146]

However, while the interests were different, it was possible to articulate them: “it was a matter of sewing together, finding the thread to bring all those visions together” [E – NT: 146]. Of course, EBM was this thread:

We were all on the same EBM page, even though they were slightly different EBMs. You know, whatever, you look back and you go, “Oh my god, what craziness that people couldn’t get over themselves.” But it didn’t matter because everybody was talking EBM, with their slight nuances.” [E – NT: 134]

Yet, since “everybody was talking EBM,” no single group in particular “owned” this matter of concern. Now that other groups started to become enrolled, ENGOs had to give up further ownership of the vision and allow it to develop in relation to the new elements: “you have to let go of the vision and it has to not be yours anymore. For everyone else to own it – they need to own it – which means you have to let go of it” [E – NT: 146]. The matter of concern developed, shifted, and changed as groups, who themselves shifted and changed, became connected to it. No one group owned the matter of concern or had an expert view. All groups brought a little of what they were doing, to paraphrase the quotation presented earlier, in order to create a new model for conservation and development in coastal BC, one “sewn together” by EBM.

The shift from the modern constitution to the collective involves a shift in forms of authority and responsibility. Instead of scientists as spokespersons for the facts and politicians the spokespersons for values, the skills of multiple groups are drawn on in the

single construction site of the collective (Latour, 2004, p. 137). The actors served to take authority away from politicians when JSP created an alternative political space. At the same time, other groups were quick to make sure that JSP did not become an exclusive form of alternative authority. These groups also served to take the authority away from scientific experts by arguing for the inclusion of all interested parties in the research project. Accordingly, the roles of scientists, politicians, and others were displaced and rearticulated. Scientists were not excluded, but were now seen as collaborators. Likewise, the Provincial Government was decentred but not ignored. Rather, it came to take on a new role.

The skills of the Government that were drawn on in the articulation of the matter of concern involved its ability to provide some stabilization of it in the face of the project's open-ended nature and the fact that it was not "owned" by any particular group. The government's particular skill is its ability to announce agreements that are seen as legitimate. For this to take place, the various elements of the project produced thus far were inserted into government procedures – the CCLRMP – and repackaged there. First, of JSP's list of valleys that would not be developed during negotiations, 20 were designated as new candidate "protection areas," while the remaining 77 were designated as "option areas," meaning that future negotiations would determine their status. Other valleys agreed in the LOI for conflict-free harvesting were designated as "operating areas." Second, the CCLRMP adopted JSP's EBM Framework as the framework for future planning in the CCLRMP. Third, the CCLRMP adopted JSP's plans for dealing

with economic change, including provisions for short term compensation and mitigation<sup>39</sup> and a medium and long term plan to establish a “Coast Development Trust,” to be funded by Provincial and Federal governments as well as ENGOs and Forestry Companies, with the purpose of “enabling socioeconomic change.” Finally, the CCLRMP adopted JSP’s draft terms of reference for an “Assessment Team” to develop EBM and recommend how it should be applied to the coast.

With these elements of the emerging matter of concern now repackaged, the Government announced, with much fanfare, a new interim agreement for the central coast on April 4, 2001. On the same day, the Government and eight First Nations belonging to the Turning Point coalition signed a *General Protocol Agreement on Land Use Planning and Interim Measures* (Turning Point et al., 2001). Among other things, this agreement explicitly elevated First Nations from the status of one “stakeholder” among many, to “governments” with special rights and responsibilities. For example, the agreement states, “where the Province intends to undertake a land use planning process in a designated geographic area, the Province will work with First Nations to define principles, anticipated scope and outcomes of the land use planning process” (Turning Point et al., 2001, p. 2). Moreover, the agreement states, “where a First Nation(s) cannot agree to a recommendation(s) from the inclusive planning forum, a government-to-government process will be established to attempt to resolve the outstanding matter(s) directly with the Province of British Columbia” (Turning Point et al., p. 3). The protocol agreement also committed both parties to developing their own Land Use Plans with guidance by the same EBM Framework as was included in the Framework Agreement.

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<sup>39</sup> Supported by a \$10 million fund provided by government, later increased to \$35 million by the newly elected Liberal government.



These agreements helped provide a degree of stabilization for the matters of concern by putting them into a new format. Discussions among environmentalists, forestry companies, and First Nations – taking place in workshops, the Meetings at the Met, in JSP – could all be brought together in a couple of documents and expressed in the form of an agreement. Formatting is a key procedure for producing the collective since it enables things taken into account to be put in order (Latour, 2005b, p. 227). Now that the open-ended matter of concern was collected in documents describing agreements, it had a chance to be ordered into a matter of fact. However, as “interim” agreements and agreements about “protocol,” these documents were really starting points rather than end points. They provided some stability for the emerging network, but this network required further articulation. In the next chapter, I will examine more closely the establishment of procedures of “taking into account” and “putting in order.” I engage in this exploration with reference to another key document, the *Ecosystem-Based Management Handbook*.

## **6.4 Conclusion**

In this chapter, I examined the negotiations involved in forestry companies and First Nations accepting their role in the emerging GBR network. This analysis showed how not only forestry companies altered their identity and interests, but also environmentalists. Moreover, discussions about the concern of, and criticism from, a number of groups, showed how fragile this emerging network, and its obligatory point of passage, was. In particular, First Nations demanded substantial changes to the network if

they were to be a part of it. They demanded to be in the rooms where decisions were being made in order to ensure that interests in aboriginal rights and title were instituted at the core of the project. The emerging matter of concern thereby began to shift and change, becoming defined by the perspectives and interests of multiple groups. The coastal forests were neither a matter of fact to be discovered by scientists nor a social construction projected by social groups. It was a material and symbolic concern that was to be investigated by multiple groups, expert and non-expert alike. In the next chapter, I look more closely at what this investigation entailed.

## 7 Mobilizing Allies and Reconciling Interests

As elements get drawn into a network, they undergo a series of transformations. First, they are “mobilized” from their original locations and brought to a new centre. Second, they are articulated with one another and combined at that centre (Callon, 1986). While previous chapters focused on the chains of translations involved in defining, interesting, and enrolling groups into the emerging GBR network, this chapter focuses on the procedures by which their interests were reconciled into one common world. In particular, I look at the development of ecosystem-based management and the conservation economy and the ways in which these things attempted to reconcile ecology and economy. The analysis shows that multiple groups participated in these processes of “putting in order.” This was not a top-down, expert-driven process in which scientists determined the facts and policy-makers made decisions on their basis. There were indeed many experts involved; however, there was also a large degree of “citizen science” and lay economics in which environmentalists, First Nations, forestry companies, and philanthropic foundations worked to find ways to articulate conservation and use, ecology and economy.

However, for these processes to be successful, the various parties would have to agree that their interests were adequately represented. Not everybody and everything that had a stake in these processes could be in the room: rather, they relied on spokespersons. As such, the possibility always remained that entities with a stake in the outcome could deny that they were properly represented. Indeed, as we have seen throughout this

dissertation, a number of groups were highly critical of the final agreement, thus contesting their “mobilization” into the new centre of the GBR.

While I show how the reality of the coastal forests was constructed by a variety of groups, this is a very different analysis than one that would be applied by a *social* constructionist. Social constructionist analysts of BC’s war in the woods have noted that it rested on a paradigm that pits trees against jobs, conservation against development, society against nature (A. Doyle et al., 2000; Rossiter, 2004; Sandilands, 2002; Stefanick, 2001; Willems-Braun, 1997). For example, Willems-Braun (1997) analyzes the texts, images and maps disseminated by forestry companies and environmentalists to argue that these representational practices frame the conflict over BC’s forests as an opposition between industry and environmentalists and thus between jobs and the environment. Both sides, he notes, represent the forests as nonhuman nature. Similarly, Stefanick (2001) argues that actors in the conflicts over BC’s forests deployed two oppositional “frames” – a “forest harvest” frame and a “conservation” frame. The former frame is premised on the ideas that human nature is self-interested, that humans are separate from and superior to nature, and technology can solve any environmental problems. The latter frame, on the other hand, holds that human survival is dependent on a non-exploitative relationship with nature, and that forests have utility beyond their economic benefits. Doyle et al. (2000) zero in on the “frames” disseminated by the forestry industry in the early 1990s, arguing that the primary frame deployed was one of “trees versus jobs.” This frame “involves the key belief that environmentalism, rather than economic factors, including harvesting at an unsustainable rate, is the primary threat to workers maintaining employment in this field” (Doyle et al., 2000, p. 254). The authors contend that this

frame is connected to a more general “nature versus people” frame, which “makes a link between a love of nature and a kind of irrationality” (Doyle et al., p. 258). Rossiter (2004) argues that Greenpeace’s GBR campaign materials “visually and discursively construc[t] a concept of pristine nature” (p. 142) by highlighting the age and aesthetic majesty of old-growth forests in photos and their accompanying text. As a result, argues Rossiter, “the nature Greenpeace sets out to protect leaves no room for human economy, technology, or politics” (Rossiter, pp. 151-52).

These writers thus analyze conflicts over BC forests as one of competing frames, a “struggle over meanings” (Sandilands, 2002) that construct nature and society in dualistic terms – a problem that should be “overcome.” As Stefanick (2001) writes, wilderness conflict in BC “is in large part due to the divergent frames of British Columbia’s forests” (p. 64), thus “efforts must be made to overcome the assumption within both frames that there exists a dualism with respect to the human condition and the state of nature” (Stefanick, p. 67). Similarly, Rossiter (2004) suggests that analyses such as his “should help to move us beyond the nature versus culture dualism that has permeated so much of the ‘war in the woods’ and encourage debate as to the kind of nature(s) that we would like to inhabit in the future” (p. 161). For his part, Willems-Braun (1997) argues for constructions that place “in question those representations that construct nature as external to cultural and social relations” (p. 25).

Largely, these writers set out to debunk the false claims about forests put out by environmentalists and forestry companies. BC’s forests are not really either “pristine wilderness” or “natural resources.” These are just social constructions that are imposed on the forests and on other people – particularly First Nations – who view the forests in

very different ways. If we want to make room for these other constructions, then we have to “overcome” the human/nature dualism which forecloses the possibility for seeing nature in connection with cultural and social relations. However, by analyzing this dualism as the result of a purely “cultural logic” – as the outcome of “representational practices,” “frames,” and “struggles over meaning” – these writers leave little room for understanding how actors can escape it, other than by creating an alternative social construction. That is, while Rossiter (2004) suggests that we should debate what kind of natures we want to inhabit, it is unclear what these natures would look like, other than as “concepts” that have “emerged through social, political and economic interactions” (p. 161). But how does one inhabit a concept? The actors remain trapped in “cultural and social relations” which have little contact with nonhumans, other than in thought.

To avoid this “pitfall of ‘social representations’ of nature,” Latour (2004, p. 32) suggests that it is best to follow the world-building activities of the actors themselves. This entails that we look at more than their representational practices. In their campaign materials, Greenpeace did in fact use words such as “ancient” and “pristine.” But does this mean that they thereby constructed a nature that “leaves no room for human economy, technology, or politics?” (Rossiter, 2004, pp. 151-152). Environmental conflicts are not only conflicts of words, rhetoric, argument, policy, or civil disobedience, but involve the mobilization of heterogeneous human and nonhuman elements. When we locate representations in panoramas that circulate in networks, as I did in Chapter 4, we can see that representations do material work. Moreover, we are free to explore how this work fits into an overall project that seeks to avoid dualisms between nature and society, trees and jobs, conservation and development.

The primary goal of this chapter is to trace how environmentalists, forestry companies, and First Nations articulated this common matter of concern in a ways that facilitated the production of a collective for coastal BC: that is, one common world for trees, animals, and humans, rather than two separate worlds arranged in a balance. In contrast to the social constructionist perspective that investigates multiple value-laden perspectives on a single reality, my approach is to investigate how the actors mixed science and politics, and facts and values as they sought to fabricate a common world. As Latour (2004) notes, the distinction between facts and values is connected to the distinction between nature and society that is at the heart of the modern constitution. The assumption of the modern constitution is that scientists can access the world as it is in itself and bring these facts into the political process in order to quell debate. But, as Latour notes, this idea short-circuits democracy. In place of the fact/value distinction, Latour suggest that the collective can operate on a distinction between processes of “taking into account” and “putting in order.” In the first process, not only experts but also all relevant groups investigate the common matter of concern. This ensures that multiple interests are brought together on a common “construction site” (Latour, 2005b, p. 88). As I show in this chapter, First Nations, environmentalists, and forestry companies all investigated the elements that they felt should be included in a new common world for coastal BC.

## **7.1 Reconciling Conservation, Development and Justice**

A group of scientists, ENGOs, forestry companies, First Nations, local communities, and the Provincial Government had been assembled around a common matter of concern, but EBM remained vaguely defined. While everyone was talking EBM, they were still uncertain what it was, other than a list of philosophical principles that mixed humans and nonhumans in surprising configurations. This uncertainty about EBM is suggested in the following quotation:

To me, ecosystem-based management is very easy to understand, and it is: “have we compromised the functioning of the ecosystem?” If the answer is “no,” then it really doesn’t matter what extraction has taken place, because it means that we must have replaced the quantity and the quality with something else, and it would be the same quality and the same quantity – this is a very confusing way of saying it – but the point is it’s not just the exploitive, extractive model, but rather it’s understanding the ecosystem function. [...] And that’s what we are trying to do with EBM, philosophically. And of course, the complex thing is turning that into a reality and what does that actually mean when you are on the ground, and that’s the complicated part. [F – NC: 004]

Even the high level, philosophical understanding of EBM, which may seem “very easy to understand” in the mind of someone very close to it, becomes “confused” when it is translated into an explanation. How much more “complex” and “complicated” it must be to translate it “on the ground”! Latour (2004, p. 83) refers to uncertain associations of humans and nonhumans as “propositions” to indicate their difference from a “statement” that either does or does not correspond to the reality it seeks to represent. According to Latour (1999a), propositions are “*occasions* given to different entities to enter into contact. These occasions for interaction allow the entities to modify their definitions over



the course of an event” (p. 141, emphasis in original).<sup>40</sup> In the case of the GBR, the interests of bears, trees, salmon, environmentalists, forestry companies, and First Nations (among others) could now be brought into contact through the “occasion” offered by EBM. Indeed, according to another participant, EBM is

just a euphemism that provides an effective vehicle for people to have quite useful discussions about what their interests are and how can they, sort of, broker relationships and understandings that don’t undermine those interests. Um, so, that’s why ecosystem-based management in the Central North Coast has taken quite a different flavour than you would normally attribute to it, just from reading the literature and stuff, and why it now clearly has the socio-economic element to it but also the governance element to it because, certainly, industry and local communities came into the discussion around ecosystem-based management with an interest on what’s now been characterized as human well-being, and First Nations came into the room with both conservation human well-being but, you know, a desire to advance their political interests which, you know, manifested itself as this governance element of ecosystem-based management. [DC – 054]

However, EBM at this point only offered an “occasion” for these interests to come “into contact” with one another. “Relationships and understandings” still needed to be “brokered” in a manner that reconciled these interests without “undermining” them. A great deal of work lay ahead to articulate these interests with one another.<sup>41</sup> The first venue for this “on the ground” work was in the territories of two First Nations. In April 2001, around the same time as the announcement of the *Framework Agreement*, the Gitga’at and Kitasoo First Nations convened meetings with ENGOs and Forestry

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<sup>40</sup> Latour (2004, p. 83) plays with the meaning of the term “proposition” to indicate how matters of concern are uncertain, tied both to language and reality (since the world is “loaded” into discourse) and involve a “new and unforeseen association.”

<sup>41</sup> Latour (2004, p. 86) also plays with the meaning of the word articulation to make a theoretical point. He writes that if something is articulated, it is so “in every sense of the word: that it ‘speaks’ more, that it is subtler and more astute, that it includes more articles, discrete units, or concerned parties, that it mixes them together with greater degrees of freedom, that it deploys longer lists of actions.”

companies to discuss land use in their traditional territories. These negotiations resulted in a Protocol that was signed by hereditary and elected chiefs of the First Nations, representatives of the forestry companies, and ENGOS. Subsequent to the agreement, the parties formed the Kitasoo-Gitga'at Protocol Implementation Team, or Kit-Git-Pit.

According to one participant:

It [the Kit-Git-Pit] was really pivotal in that it was kind of like the “on the ground” way of modelling a bunch of the ideas that are great in principle and theory, but you have to really check that it was going to work. And it was basically the progenitor of the *EBM Handbook* – it created the EBM Handbook. And, I think the other piece that it created really beautifully was this idea of needing to get a new governance structure. And also the idea that we need to pilot this idea of conservation financing. [E - KI1: 114]

The three “pieces” developed by the Kit-Git-Pit – the *EBM Handbook*, conservation financing, and a new governance structure – were the key mechanisms for reconciling conservation, development, and justice in the GBR<sup>42</sup> and, thus, the Kit-Git-Pit was “really where we drove the whole thing” [E - NT: 294].

The Kit-Git-Pit produced the first drafts of the *EBM Handbook* (EBMH). Eventually, the *Handbook* was released under the auspices of the Coast Information Team, where it was accorded the legitimacy of “an independent advisory body bring[ing] together the best available scientific, technical, traditional, and local knowledge” (Cardinal, 2004, p. 1). The *EBMH* became a central document, forming the touchstone of the GBR network. In particular, the document was accorded essential status for the full implementation of EBM by March 31, 2009, on which the agreement hinged. In their

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<sup>42</sup> Moreover, its work was integrated into the CIT, the First Nations' Land Use Plans, the CC LRMP and the North Coast (NC) LRMP, and the CIII.

document entitled, *Definition of Full Implementation of EBM by March 31, 2009*, the Joint Land and Resource Forum (2007) defined EBM as “an adaptive, systematic approach to managing human activities, *guided by the Coast Information Team EBM Handbook*, that seeks to ensure the co-existence of healthy, fully functioning ecosystems and human communities” (p. 1, emphasis added).

The *Handbook* is particularly important because it inscribes the processes for articulating the proposition that petitions the network convened to consider it: ecologically significant First Nations’ territories; or, as the *Handbook* puts it, ecological integrity and human well-being. With the concept of “assessment,” the *Handbook* draws attention to the kinds of things that need to be “taken into account” to articulate EBM, and who is best to judge them.

Assessment refers to the range of ecological, biophysical, cultural, and socio-economic inventory and analysis that is carried out to develop information needed to engage in design, integration, and implementation at various planning scales, and also to monitor the outcomes of management activity. (Cardinal, 2004, p. 19)

Lest one considers that the task of assessment is to be exclusively engaged in by scientists, or that assessment refers to separate tasks (scientific, cultural, and socio-economic) applied to separate spheres (nature, culture, and society), the principle of “collaboration” (detailed in section 2.4.9 of the *Handbook*), ensures that they are assessed in an inclusive and integrated manner.

EBM planning should engage people – First Nations, senior governments, resource users, tenure holders, local communities, and local people – meaningfully in developing and implementing plans as necessary at all scales. Collaboration provides a means for affected parties to establish interests,

objectives, constraints, and incentives to ensure that land use and resource development supports community well-being. (Cardinal, 2004, p. 15)

Here, the focus is not on having scientists determine the ecological ‘facts’ which may then be presented to politicians so that they can make decisions. Rather, everyone/thing that has a stake in the articulation of EBM are represented and has a voice in how it should be investigated and judged. Scientists, together with their trees and animals, can investigate the ecological integrity of the region. First Nations, with their members, elders, and consultants, can investigate the cultural features of the landscape. Local people in need of employment (primarily First Nations peoples), together with their community, economic development experts, and local entrepreneurs can assess the prospects for economic development in the region.

Nonhumans are given voice through the same filters encountered in Chapter 5. Given the sheer numbers and complex relationships among nonhumans in the coastal forests, representatives must be found to stand in for them. According to the Coast Information Team (CIT), “coarse filter approaches to maintaining ecological integrity acknowledge that there are myriad species about which we know little or nothing, and that our ability to predict ecosystem processes is, at best, very limited” (Holt et al., 2004, p. 28). These strategies designate representative ecosystems,<sup>43</sup> which are defined as

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<sup>43</sup> Another method for representing the trees and animals of the coastal region is through representative species, including umbrella, keystone, and indicator species. While such species have been identified for the region (grizzly bears, salmon, northern goshawks, respectively), and while they have been recommended by the CIT as suitable representatives, the CIT only made specific recommendations with respect to representative ecosystems.

“ecosystems that are especially common, that define the character of a region” (Cardinal, 2004, p. 75).<sup>44</sup>

Similarly, human communities are considered to be complex and difficult to understand. According to the *Handbook* (Cardinal, 2004),

Socio-economic planning is also most likely to be successful when it treats people and their communities as living systems; as communities, sectors, and constituencies whose relationships are as significant as their individual needs and interests; who behave and respond in creative and unpredictable ways; who need to learn and adapt in order to be successful. (p. 7)

In this definition, the principle of symmetry is in play: nonhumans and humans are taken into account in similar ways, since both are understood as living, unpredictable, adaptive systems defined by their relationships. Moreover, both ecological integrity (EI) and human well-being (HWB) are complex and difficult to understand. It is for this reason that representatives are chosen.

However, while efforts were made select representatives of human well-being, to date they have not been very satisfactory. One reason given for this was the development of indicators in a top-down matter, that is, they have been defined by experts rather than determined by the actors themselves.<sup>45</sup> A model of HWB was developed in the CIT that broke it down into four elements: health and population; wealth; knowledge and culture;

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<sup>44</sup> More specifically, representative ecosystems are determined in relation to an ecosystem classification system developed in BC termed the biogeoclimatic ecosystem classification system (Pojar et al., 1987). This system uses “site series” to indicate general ecological types on the basis of differences in climate, topography, and soil. Each site series or group of site series defines a particular ecosystem, the protected portion of which will “represent” the ecosystem type, and thereby the plants, trees, and animals that are typical constituents thereof.

<sup>45</sup> The other reason was the selection of a narrow range of indicators tied primarily to socio-economic wellbeing

community and equity (Prescott-Allen, 2003). A wealth of indicators was developed for each.<sup>46</sup> However, reflecting the rejection of the modern constitution approach in favour of the collective, this document never made it past the draft phase: it was not passed along and thus never achieved the status of a real assessment of HWB (c.f. Latour, 1987). As the following quotation indicates, the primary issue was that the assessment did not accurately represent HWB for coastal communities, since it applied an “academic” or “intellectual” approach that was developed at national levels to the local communities for whom it was inappropriate. According to one participant:

Most people put a higher value on their own assessment and their neighbour’s assessment and most of the communities are small enough, everybody knew everybody else, so the more intellectual approach might work better in a large city like Vancouver, but if you’ve got a community like Rivers Inlet where, when the population’s down, it’s 85, and when it’s burgeoning in the summer, it’s 120, how much intellectualization do you need to define your community well-being versus simply talking to your neighbours. [PG – XF: 460]

For this reason, the *EBMH* largely leaves responsibility for assessing HWB to the actors themselves: “The CIT approach to EBM emphasizes the need for communities and stakeholders to set their own objectives for, and do their own assessments of, indicators of well-being” (Cardinal, 2004, p. 20).<sup>47</sup>

Despite difficulties with taking HWB into account, the *EBMH* attempts to reconcile them with one another. During the war in the woods, a “trees versus jobs”

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<sup>46</sup> Such as: percent of population change for population; child mortality rates for health; average employment income for wealth; school enrolment rate for knowledge; participation in cultural events for culture; equal treatment by the justice system for community and equity

<sup>47</sup> Perhaps due to the failed attempt at expert-defined human wellbeing, this aspect of EBM so far is less well articulated than EI.

framing (Doyle et al., 2000) entailed that nature and society are inherently in conflict with one another. As mentioned in the introduction, several analysts of BC wilderness politics (Doyle et al., 2000; Rossiter, 2004; Sandilands, 2002; Stefanick, 2001; Willems-Braun, 1997) argue that they are underpinned by a conceptual dualism between society and nature. These assessments are correct as far as they go, and I have shown how environmentalists and their scientist colleagues attempted to construct issues of ecology as separate from issues of society and economy. However, these analyses tend to focus only on practices of purification, such as the representational practices through which forests are defined as examples of “pristine wilderness.” Yet, they generally do not examine practices of translation which occur simultaneously with practices of purification, as I have done in this dissertation. As a result, their analysis tends to be one-sided, as is their admonition to the actors to “overcome” dualism, since it only engages with how nature is defined and represented, but not how it is materially produced.

The reason for this is an asymmetrical approach to reality and representation. Social constructionists focus on multiple perspectives that are culturally produced and have important social outcomes and impacts. Yet, they have little to say about the reality to which such representations refer. Despite the claims of critics, most social constructionists believe in a real world, but simply prefer to withhold ontological claims about it (Birmingham and Cooper, 1999). This lends itself to what Latour (2004) calls “multiculturalism” and “mononaturalism” (p. 33), terms he uses to indicate the view within the modern constitution that there exist many interpretations of a single nature. By contrast, Latour speaks not of the representation of nature, but of the construction of collectives.

Thus, it is not a matter of looking at actors' concepts to analyze the manner in which they represent a world that is assumed to already exist in itself, but of tracing the ways in which actors go about constructing new realities. Non-dualism is not a matter of representation but of construction.<sup>48</sup> When we approach the case with this understanding, we can start to trace the ways in which the actors worked to construct a world that avoided the idea that nature and society already exist in themselves and that the purpose of conservation projects was to find acceptable trade-offs between them that would result in some kind of balance. As argued in the EBM Framework (Aikman et al., 2004),

[The] idea of entrenching a demand for both human wellbeing and ecosystem integrity veers sharply away from thinking in terms of a “trade-off” between people and the environment. Obviously, any practical application has hundreds of small trade-offs: between interests, between components of the ecosystem, across time, and across space. However, ultimately, maintenance of ecological integrity and improvement of human wellbeing are critical; maintaining or improving one at the expense of the other is unacceptable because either way the foundation of life is undermined. (p. 3)

Indeed, even the idea of finding a “balance” between conservation and development, central to ideas of sustainable development (Brundtland, 1987), is replaced. As one interviewee puts it:

[T]he interest always was to balance – balance is the wrong word, that's actually probably the issue – the interest was ecological conservation sustainability with human well-being ensured throughout it. Now the truth was that we didn't envision that we were going to balance those two – that is, trade-off ecological sustainability for human well-being [...] My vision would be that while [...] maintaining ecological integrity of the area, you would find ways to secure human

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<sup>48</sup> Representation and construction are not the same thing. I am not using the term construction as a short-hand for social construction. By construction, I mean the creation of new material-semiotic networks.



wellbeing that may be different from current options, economic options. For example, you don't just say, "Okay, we're gonna go log because we have to maintain human well-being." So, it's the word balance and what balance means to people. [E – NT: 156]

This way of understanding the relationship between EI and HWB is also contained in the *Handbook* (Cardinal, 2004):

The goal to maintain ecological integrity defines an overarching context for achieving high levels of human well-being, primarily because it implies a commitment to sustainable, cautious resource use. However, this does not necessarily limit community and business development. EBM also implies negotiation of new arrangements through which First Nations, communities, and businesses collaborate to find innovative ways of implementing management and achieving development. (p. 5)

The "new arrangements" are key. If one begins with the assumption that society and nature are separate spheres, and that the interests of ecological conservation and economic development are inherently opposed, then the best that one can strive for is to find some kind of balance involving the least worst set of trade-offs. However, if one denies the premise and instead says that we can create the kinds of worlds that we would like to live in, then conservation and development can be reconciled. But this requires the development of specific mechanisms and arrangements to achieve the mutual accommodation. That is, both the sphere of ecology and the sphere of economy need to undergo changes if they are to relate to one another in positive sum rather than zero sum terms. As one interviewee put it, "What I like about it is its explicit consideration of both. And it's and it's, sort of, a public acknowledgement of both, which hasn't happened in the past" [PG – MK: 392].

In the *Handbook*, four procedures are applied to the sphere of ecology to render it commensurable with the sphere of economy: variation, risk, scale, and time. First, the *Handbook* draws on recent ecological research that recognizes that ecosystems are not static entities, but are dynamic and characterized by a certain degree of disturbance. As noted in the *Handbook's* support document, *The Scientific Basis of EBM* (Holt et al., 2004), “implicit in the *Handbook* is the understanding that the reference point against which ecological integrity is measured is the ecosystem as defined by natural disturbance processes” (pp. 13-14). Later, the document notes,

Natural disturbances, along with the activities of First Nations peoples, have historically shaped the composition and structure of forests on the coastal landscape. A good understanding of natural disturbance dynamics is an important first step towards maintaining ecosystem function and habitat characteristics to which native species have adapted. (Holt et al., p. 17)

As the document notes, a number of elements render the coastal forests variable by inducing disturbance. Wind, fires, insects, animals, floods, avalanches, extreme weather events: all of these things can destroy trees and open the forest canopy. Moreover, the “return interval,” or time it takes for the forest to re-establish itself after disturbance, is measured on the scale of millennia. However, disturbance regimes for the coastal forests, as noted in the documents, are small and infrequent (Holt et al., 2004, p. 17). This “Range of Natural Variation” (RONV), as it is called, is then taken as the benchmark for ecological integrity. Thus, EI is not a static entity, but viewed as the outcome of a number of processes – human and nonhuman (although the role of First Nations in producing disturbance is not discussed in the document) – that produce a particular range.

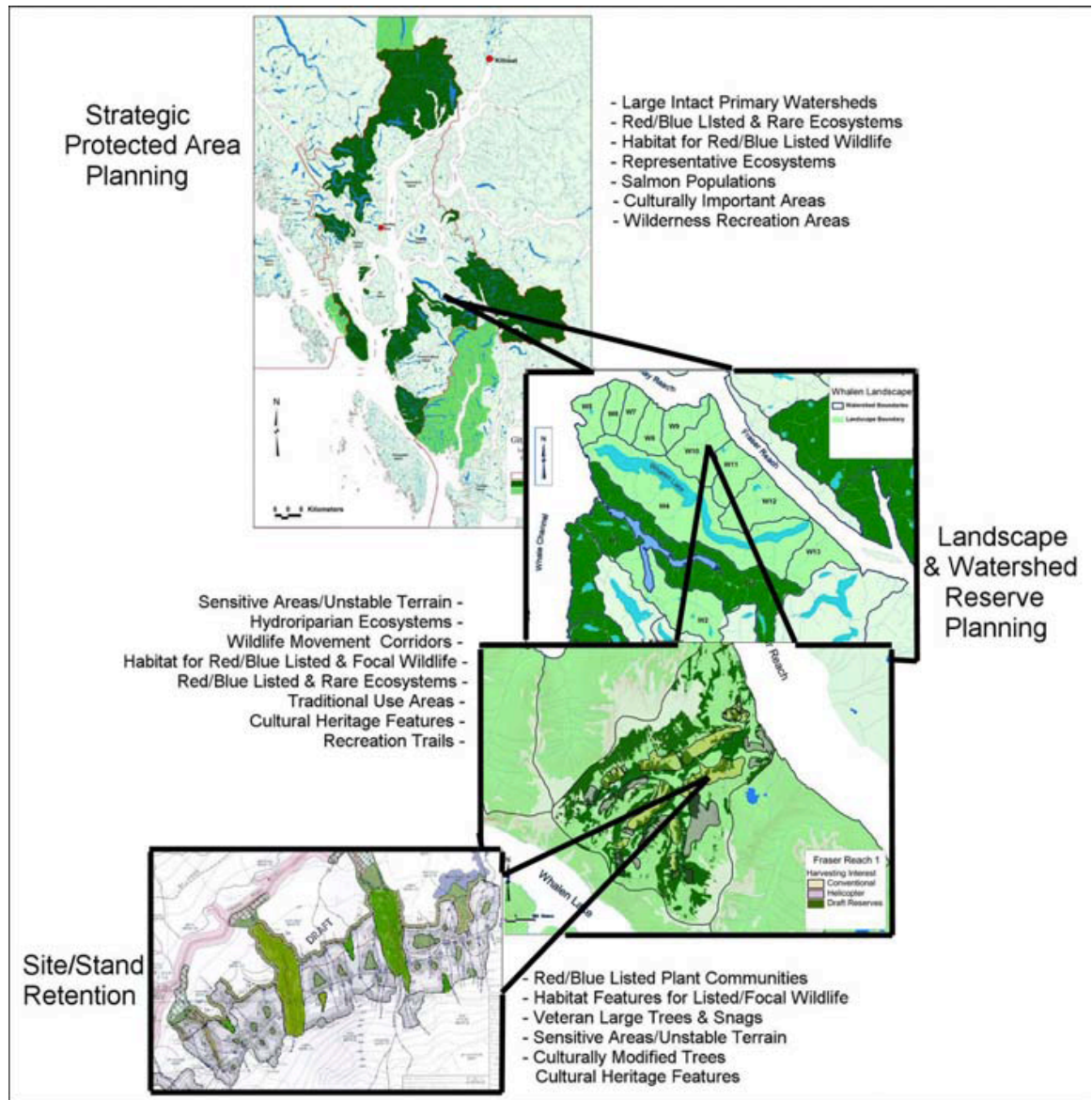
This is far from the “pristine wilderness” concept deployed during the war in the woods. Rather than viewing the forests as pure, such that any human use would entail a desecration, the forests are viewed as variable and thus in principle able to incorporate human use as one form of disturbance among many. Nevertheless, the bounds for this disturbance are tightly delimited, given the minor and infrequent nature of disturbance events in the coastal forests. More precisely, the integration of human activity into ecological integrity is determined by the concept of the risk threshold, the second procedure used to transform ecology in order to render it commensurable with economy. According to the concept of the risk threshold, “low risk begins at the threshold where adverse impacts begin to be detected, and the transition to high risk corresponds to where significant loss of ecological function is expected to occur” (Cardinal, 2004, p. 10). The CIT determined that reducing the amount of old growth trees in an ecosystem by 30% is a low or precautionary risk threshold, while reducing trees by 70% is a high risk threshold.<sup>49</sup> According to the *Handbook*, the multiplication of the Range of Natural Variation by low and high risk thresholds yields precautionary and high risk management targets. Thus, for example, if the RONV of a particular ecosystem entails that 85-93% of it will contain old growth trees, multiplying this range by low and high risk thresholds yields a precautionary range of old-growth at 59-65% and a high risk range of 25-28% (Cardinal, 2004, p. 11).

While the primary goal is low risk to EI, room for manoeuvre is built in by articulating risk with scale and time, the third and fourth procedures used in the EBMH. The *Handbook* differentiates the central and north coasts into a hierarchy of scales, with

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<sup>49</sup> These figures were controversial but withstood a trial of strength in the form of a risk threshold workshop (Price et al., 2007).

the “sub-region” or “territory” defining the highest scale, then decreasing in a nested series through “landscape,” “watershed,” and “site” or “stand” scales.



**Figure 12: EBM "Levels"**

Source: Cardinal (2004)

As can be seen in *Figure 12*, the region is not to be protected in one giant park. Rather, protection is to be applied to particularly sensitive landscapes at a variety of scales,

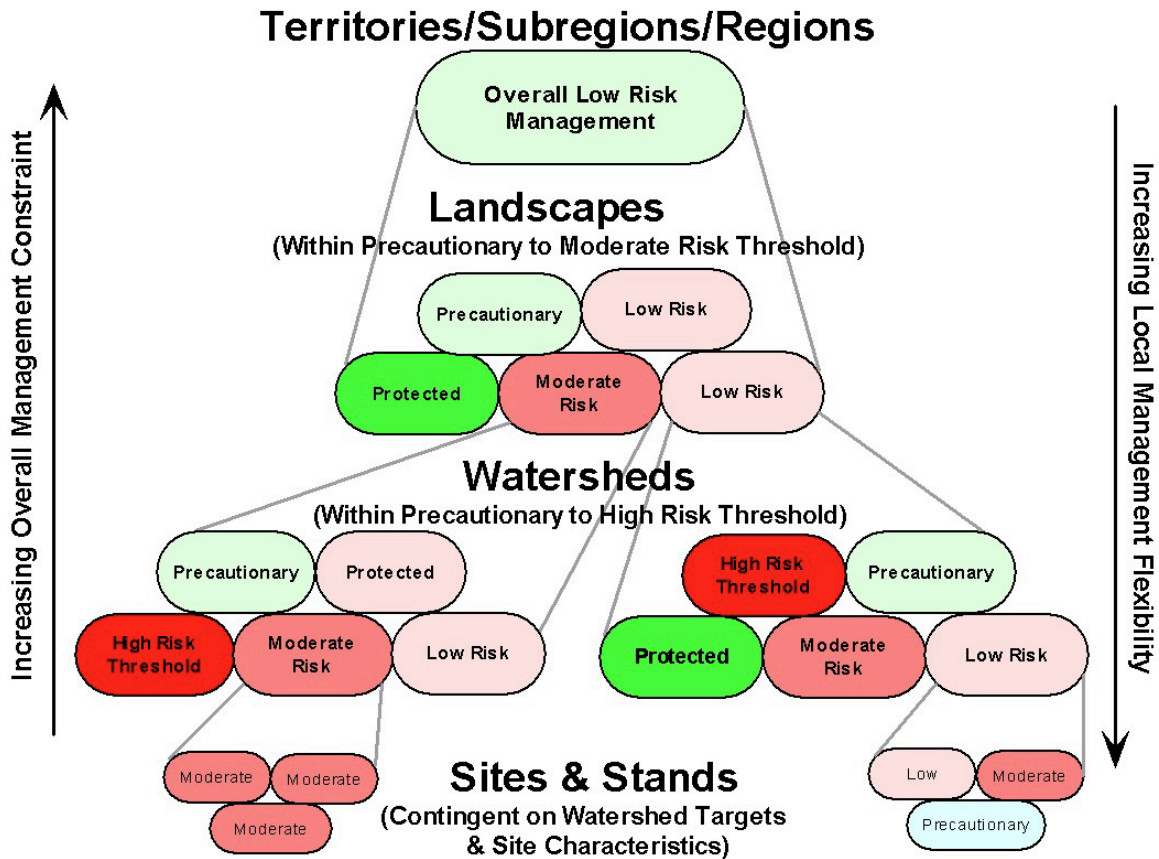
leaving the intervening spaces for other uses. At the highest, regional level, “representative ecosystems” may be given protected status. The intervening spaces do not have legislated protected status, but protect important ecological, First Nations’, and recreation values in reserves at the landscape level and in stand retention at the site level.

Low risk activities are required in protected areas, reserves, and stand retention areas. However, higher risk activities are deemed acceptable at lower levels with lower conservation value as long as the risk averages out to low risk at the highest level (see *Figure 13*), since:

the underlying assumption is that it is not necessary to sustain all species and processes everywhere all the time in order to maintain ecological integrity, as long as lower risk management objectives and targets are being achieved at strategic subregional and landscape planning scales. (Cardinal, 2004, p. 11)

Time is also an important dimension with respect to risk. While the overall goal is low risk across all ecosystem types, the actors recognize that this goal does not need to be achieved immediately. Rather, it is a long-term goal to be achieved by a plan, thus enabling flexibility and variability on the way to its successful institution. As noted by one interviewee,

where all the parties are at now, at least CFCI and RSP, is that by March 31, 2009 there will be a system in place and you’ll be operating either at low risk, as defined in the *Handbook*, or as maybe modified through adaptive management, or you will be operating at a level that’s different than low risk, where that decision has been made as a result of a social choice. In other words, [we can] depart from low-risk for a defined, in a defined area, by a defined amount for a defined period of time, provided that low risk remains the long term goal, there’s a plan to get to low risk over the long term. [C – EK: 338]



**Figure 13: Risk at Different EBM Levels**

Source: Cardinal (2004)

Moreover, some areas are already at high risk due to past logging operations and therefore need to “recruit” old growth over time in order to arrive at low risk. As one interviewee put it:

I mean, you know, to be blunt about it, you’ve got some ecosystems there that have had so much development in that you’re not gonna have your old growth representation that you’re looking for 300 years in any case, because, you’ve got to grow it. [F – QB: 152]

The elements of variability, risk, scale, and time serve to render ecology commensurable with economy. Rather than assuming that the two spheres exist *a priori* and are in inherent conflict with one another, these elements produce new mixtures of people, trees, and animals wherein human activity is viewed as one form of disturbance among many and where human disturbance can be inserted at different scales and times given commitments to overall levels of risk. These are specific mechanisms invented by the actors to produce the kind of world that they want – one that includes both ecological integrity and human well-being.

## **7.2 CIII: Rendering Economy Commensurable With Ecology**

A second set of procedures was invented to reconcile conservation, development, and justice – this time applied to the sphere of economy to render it commensurable with the sphere of ecology. As mentioned above, during the war in the woods, these two terms were split, pinned against each other in fundamental conflict, and were viewed as incommensurable. By contrast, actors involved in the GBR are working to create a hybrid ‘conservation economy’ that consists of 1) an economy that relies on conservation as its condition of profitability and 2) conservation that provides an economy through the translation of its ecological values into economic values. Moreover, the conservation economy is based on the principle of justice, as it is determined by and designed to benefit those most in need: local First Nations.

The Kit-Git-Pit convened a working group to take the conservation economy from a concept to a reality. Termed the Conservation Investments and Incentives Initiative (CIII), the group worked to determine the feasibility of the idea. The role and activities of the CIII can be seen in a presentation given by ENGOs to the CCLRMP in 2003 (CIII, 2003). The first slide – “CIII Background” – presents the central idea of the conservation economy: while traditionally locked in an inherent zero sum conflict, conservation and economy *can be* viewed as mutually dependent and even positive sum.

#### *CIII Background*

- Traditional conflict between conservation and economic development
- Emerging understanding that conservation and local sustainable economies are mutually dependant
- Emerging belief that conservation can be used to attract global investment for use in local economic development
- Emerging interest by many – is this real?
- ENGOs “challenged” by FN, province, and others to demonstrate this is real
- ENGOs propose joint initiative with BC [government] (CIII, 2003)

Merely stating that conservation and development are mutually dependent and positive sum does not mean that this is a reality. There is only an “emerging understanding” and an “emerging interest by many,” but we are still left with the question: “is this real?” What defines reality? According to Latour (1988), “nothing is by itself either logical or illogical, but not everything is equally convincing. There is only one rule: ‘anything goes;’ say anything as long as those being talked to are convinced” (p. 182). That is, reality is an achievement that results from processes of “convincing.” The first people that needed to be convinced – or, rather, who demanded, “convince me!” – were First Nations.



The challenge from the First Nations to the Enviros came was that “put your money where your mouth is.” And that’s where the seeds of conservation financing [came from] [...] So it was a paradigm shift and it was all a very high level idea then we had to get down to the nuts and bolts of, “Okay, so what does this mean? How are we going to make this real?” [E – NT: 150]

To say that reality is an achievement is not to say that everything is relative and that reality is purely a social construction. The process of convincing is not simply rhetorical: things only become real when they are connected to the “nuts and bolts” that render them strong and durable. But this can only happen through a “challenge” of “demonstration” (or, in Latour’s [1987] terms, a “trial of strength,” [p. 87]) through which humans and nonhuman are enrolled as allies – or fail to be so enrolled.

One key ally that the CIII needed to enrol in order to make the conservation economy “real” was investors and their money. Once this money was attached to the GBR, it could be used to simultaneously support conservation and development. Another slide from the presentation – “CIII Theory” – puts it like this:

*CIII Theory*

- There are substantial financial resources available globally with interest in investing in conservation
- Some of these resources can be attracted for investment in coastal British Columbia
- These resources can be applied in a manner that leads to locally sustainable economies through new economic development AND supports higher levels of conservation (CIII, 2003)

Who were these theoretical investors with global financial resources? According to the slide, they existed as a network made up at the intersection of an interest in economic development and an interest in conservation. How this network was formed is not

specified by the CIII, but said to exist in theory. The primary question, expressed as the “General Objective” of the CIII was:

*General Objective*

- Is it possible to exploit the convergence of conservation interests and economic development interests in a way that promotes a legacy of economic health for coastal communities? (CIII, 2003)

Achieving this objective entailed the work of linking money, conservation, jobs, and First Nations. This involved three basic tasks: attracting money; linking money to conservation; and tying conservation money to jobs for First Nations.

First, where would the money come from? There were not piles of money lying around that could be picked up and used however actors wanted. Nevertheless, according to the presentation, there were actors out there lying in wait who, given their “convergent” interests, could be enrolled in the network under construction. The work here would consist of identifying “the extent to which conservation-based financial resources exist and are available for investment in BC” as well as “the conditions under which these resources can be attracted to BC” (CIII, 2003). Potential investors were identified, including: philanthropic groups, provincial government, federal government, corporate investors, fund investors, and private individuals. Not only were potential investors identified and differentiated, but also aligned with funds that were themselves differentiated into types. Some funds would be tied to conservation management (goal of \$60 million), others to economic development (goal of \$60 million), and still others would take the form of “socially responsible investment,” or “capital investment in new

economic activities and businesses at below-market returns” (goal of \$30 million)<sup>50</sup> (CIII, 2003).

Links to these funders were made through a conservation financing project engaged in by ENGOs and First Nations operating out of the Kit-Git-Pit<sup>51</sup>. Raising funds to support economic development was a very new role for ENGOs, whose focus had traditionally been on protecting wilderness *from* economic development. It thus involved a shift away from the “politics of limits” (Nordhaus et al., 2007) in which “environmentalists define their interests as limiting human intrusions upon nature.” This shift involved some soul-searching by ENGOs:

We’re going: “Should we just tell people they should do it [develop a conservation economy] and now it’s their problem, or are we actually going to have to go help find them some money to help, sort of, jump start that [process]?”  
[E - KII: 114]

Building realities is about enrolling allies that, in turn, need to be convinced that they should join the network. ENGOs and First Nations needed to convince funders that the conservation economy was a viable idea and that they should participate in it. In order to do that, other allies were enlisted to translate the idea into terms that would be attractive to the potential funders.

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<sup>50</sup> These latter funds never did materialize, largely due to government resistance to this “type” of investment.

<sup>51</sup> While the idea of the conservation economy was originally adopted by ENGOs given their interest in justice and the plight of First Nations, it was even more forcefully engaged with by First Nations when they took an active role in developing it – so much so that it came to be seen, at least from their perspective, as their idea.

We brought in a very reputed consultant group [Redstone Strategy Group] from the US who helped design the conservation financing model [...] They were sort of working on behalf of a variety of parties including the foundations who didn't want to throw millions of dollars at something if it was just basically going to fail. [E – NT: 350]

The consultant collected information from Statistics BC, First Nations Chiefs and Council members, Regional and Provincial economic development officers, Business leaders and industry experts, Ministry staff, Operating companies, NGOs and interest groups (Redstone Strategy Group, 2003). In the process, they visited 7 communities in the region, chosen to be representative rather than exhaustive. Consulting BC Stats 2001 Census, the consultant determined that the region required 1750 new jobs (determined by the area population minus non labour force, employed labour force, and “natural unemployment”). These total jobs were then broken down in an estimated job need by community. Of the 1750 needed new jobs, the consultant suggested that there was actually only a need of 1440 new “core” jobs, due to the multiplier effect manifested in service sector spin-offs.<sup>52</sup> These jobs were then broken down by sector.<sup>53</sup>

According to one environmentalist, these results were:

a huge piece in our selling the conservation financing, is you go to a guy and say, “Listen, we are trying to raise \$120 million dollars: we’re trying to raise \$60 [million], you’re gonna leverage you’re money – you can double your money because we will get the Government to put in \$60 [million] – we’re going to create economic development and jobs and if we create 200 jobs we will have solved the employment problem in this region.” Or whatever the number was, don’t quote me on the number. So that’s a pretty good story for people, they were

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<sup>52</sup> Note the symmetry between the CAD which worked to define “core conservation areas” and Redstone which worked to define “core jobs” for the region.

<sup>53</sup> with 430 going to shellfish aquaculture and fisheries, 460 going to cruise ship and high-end lodge tourism, 275 going to sustainable forestry and nontimber forest products (mushroom harvesting), 85 going to conservation activities, and 190 going to “other.”

like, “unbelievable!” And when we showed people, this is actually all. . .this could work. [E – NT: 350]

The value of this story in selling conservation financing to funders was even greater given the kinds of translations that money would go through to eventually reach conservation. Many of the funders targeted (such as the Nature Conservancy) were accustomed to linking money and conservation through the outright purchase of land for the purpose of protection. However, BC’s forests are publicly rather than privately owned and cannot for that reason be bought and sold. Thus, in order for funders’ money to impact conservation outcomes, it would *first* have to be translated into support for conservation jobs for First Nations, which would *then* be translated into scenarios that specified the specific relationship between funding and land designated for conservation, which would *then* inform First Nations’ land use plans, which would *then* result in a given amount of protection of the land base. According to one environmentalist, this was not an easy thing for funders to “wrap their heads around”:

that took a while to kind of get donor’s heads around because usually, you know, TNC [The Nature Conservancy] raises money like this for conservations initiatives like this in the US but it’s usually about buying land. We had to convince them that, no, we can’t buy the land here, we’re not buying land to protect it, it’s they’re going to protect it but they need an alternative means of economic opportunity and that’s what this is trying to create those opportunities for them which gives First Nations some, not certainty, but greater confidence in being able to set aside these lands. Because they know that they are going to be able to develop their economy other ways. And good on TNC that they were able to get people to wrap their minds around that. It’s a different model. [E – MN: 200]

Funders were eventually “convinced”; however, enrolment is a two way street and funders imposed three sets of conditions on their potential contributions. First, they

wanted “legal mechanisms to provide security” (CIII, 2003) including assurances that conservation values would be permanently protected and that their protection would be enforced. This involved the legal establishment of a certain amount of protected areas (2.25 million hectares). Second, funders required the establishment of “sustainable models of economic development” (CIII, 2003) that ensured a high level of employment while at the same time protecting the environment and using natural resources prudently. This took the form of the establishment and adequate funding of the Ecosystem-Based Management Working Group and an initial suite of legal land use objectives. Finally, funders required that Federal funds, which would match the Province’s \$30 million contribution, were in place.

The second major task of the CIII was to link money to conservation. In the zero sum “trees versus jobs” paradigm, more conservation means less money and vice versa. By contrast, the CIII attempted to link these things in positive sum terms. In the words of one environmentalist, the means of linking conservation and development were provided by the mediation of the international community (taking the form of investors interested in conservation).

if you’re [i.e. a First Nation] gonna take an opportunity hit and not log a bunch of stuff in your territory, that means that you are taking some global responsibility, and the world needs to help pay you for the fact that you’re taking an opportunity hit, and pay for the opportunity cost. [E - KII: 114]

Trees can be translated into employment by cutting them down and linking them to international retailers of forest products. However, the forest can also be translated into employment by linking standing trees to international funders who will pay for the

“opportunity cost” of conservation. How was this to play out in practice? According to an ENGO presentation (Rainforest Solutions Project, 2003), “through conservation financing, conservation investors make a financial investment in a First Nation based on the conservation value of their LUP [Land Use Plan]” (p. 3). That is, money was specifically tied to the amount and value of land designated for conservation in First Nations’ land use plans, based on four considerations:

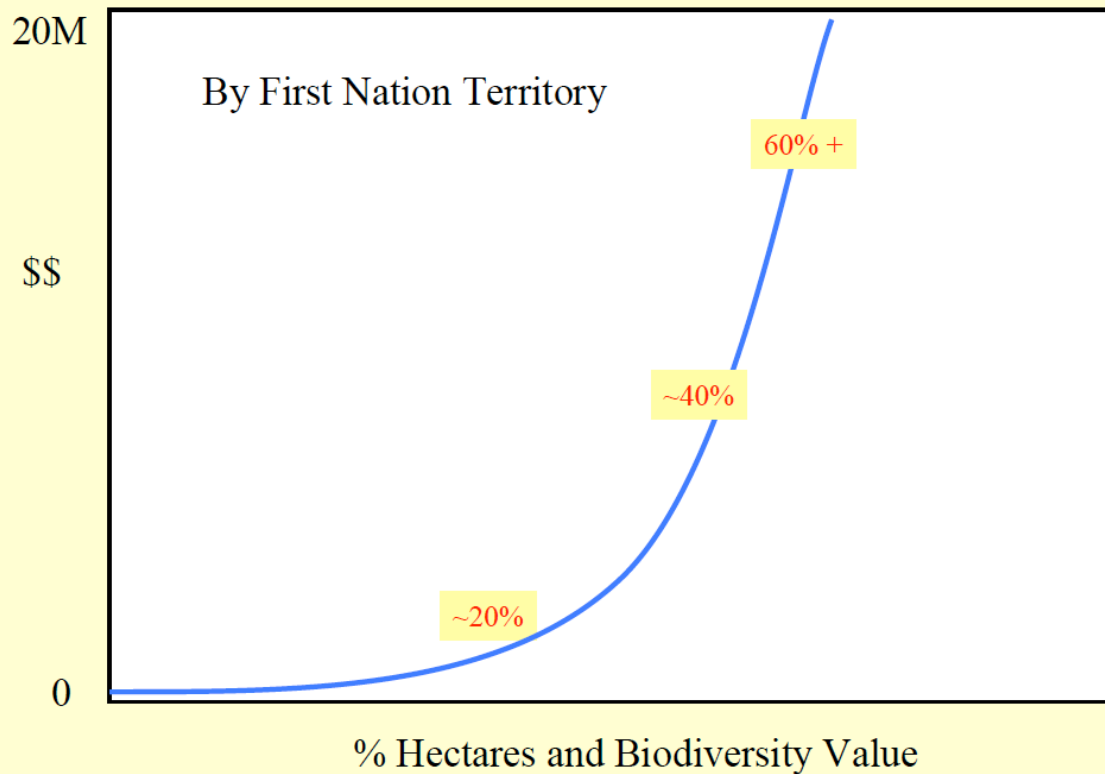
1. The amount of land area in conservation status (i.e. no resource extraction activity)
2. The biodiversity values of the land (biodiversity indices)
3. The contiguous nature of the conservation and restoration areas (clusters)
4. The percentage of a First Nation territory in conservation or restoration toward protection status (Rainforest Solutions Project, 2003, p. 5)

In fact, money and land were connected in a specific formula:

50% Conservation Value + 30% Protection Value + 20% Complex Value = Conservation Financing Available to a First Nation. (Rainforest Solutions Project, 2003, p. 6)

The “Conservation Value” was determined by a “protection factor” and a “restoration to protection factor,” the latter of which was given half the weight of the former. The “percent protection value” was determined by the percent of the First Nation’s territory in protection, with higher protection giving higher value.

## The Relationship Between Protection and Conservation Financing



**Figure 14: Conservation Financing Equation**

Source: Rainforest Solutions Project

The “complex value” is “based on the contribution made by watersheds to the creation of larger complexes” (Rainforest Solutions Project, 2003, p. 10), with greater contribution giving higher values. The result was a clear positive link between the amount and value of land put into conservation status and the amount of money that First Nations were eligible to receive (see *Figure 14*). However, this arrangement was differentiated from market transactions, since, as mentioned above, the land in question was not considered to be a commodity. As made clear in the presentation, “the amount of each proposal in no way reflects the monetary value of the land” since “the real ecological and cultural



values of these lands cannot be named in monetary terms.” Thus, conservation financing “is not about buying land or buying conservation” (Rainforest Solutions Project 2003, p. 4). Not only was this point important to help potential funders “wrap their heads around” the idea of conservation financing, but it was also important to assuage fears of undue foreign economic influence on domestic policy issues. One environmentalist responded to the idea that:

US funders are controlling what’s happening in BC and it’s like. . .first of all, it’s just wrong, you go ask US funders, they did not design EBM or any of these things, they were brought in and a lot of the funders that funded stuff were brought in after the fact. You know, the criteria and everything had been developed based on the LRMP and so the criteria for the conservation funding dollars to come in are what’s in the LRMP. [E – NT: 366]

Rather, the purpose was to provide options and incentives for First Nations to conserve their territories. First Nations who were in the process of developing a LUP were encouraged to put their draft land use scenarios into the formula in order to inform their final LUP.

Conservation Investments and Incentives Initiative is what it was originally called and that’s because it was investing in conservation, not land, whereas most people were used to investing in land. It’s investing in conservation so that First Nations communities can implement these conservation-oriented land use plans. And so, it was an incentive for conservation and it was an investment into conservation. [E – NT: 404]

The third task in making the conservation economy real was tying conservation money to jobs for First Nations. This task was split into two parts: tying conservation to jobs and tying jobs to conservation. The first half of this task involved providing

mechanisms that would link the designation of land for conservation with employment opportunities for First Nations. In the past, conservation was equated with job loss; in the case of the GBR the question was: how could conservation be tied to job creation? The philanthropic funds provided the mediation. As noted above, the interests of philanthropists were in conservation, and they linked money to conservation in the form of purchasing land to take it out of the market economy. However, this interest had to be translated in the GBR since land is public and cannot be purchased. Thus, this interest became channelled into an interest in providing funding for First Nations to plan, manage, and conduct research on conservation lands in their territories. Resource management jobs, interpretive programs, Watchman programs, research positions: all of these forms of employment would be funded by philanthropic money.<sup>54</sup>

The second half of tying conservation to jobs involves the development of businesses that depend, as a condition of their profitability, on conservation. In other words, these would be jobs that ensure rather than undermine sustainability. The kinds of businesses that these funds are intended to support include: shellfish aquaculture; fisheries; technology and communication; wildlife viewing; nutraceuticals; mushroom harvesting; non-timber forest products; tourism including cruises and wildlife viewing; EBM-compliant forestry operations; non-nuclear and non-carbon burning energy projects; green building projects; and small scale, non-toxic, subsurface rock, mineral, or gem extraction projects (Coast Conservation Endowment Fund et al., 2007).

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<sup>54</sup> Not only did this channelling of philanthropic funds suit philanthropists, but it was one of the few ways that philanthropic funds could be applied, given Canadian laws on how such funds can be used.

The Provincial and Federal governments each contributed \$30 million towards an economic development fund in support of businesses such as these. Whether businesses such as these can in fact be successful remains an open question. Indeed, a great deal of skepticism exists about the ability of the region to invent a conservation economy based on new businesses. Nevertheless, the funds have been put in place, making at least this aspect of the conservation economy – “putting your money where your mouth is” – real. As recounted by one environmentalist:

When that announcement happened this year, I don't know how many Chiefs came up to me and said, “we never believed it, I have to tell you, yes I went to all those meetings, and yes we talked about this, [but] I never believed it would ever happen.” [E – NT: 300]

In sum, EBM and the conservation economy help to render ecology and economy mutually commensurable. By using the mechanisms of variability, scale, risk and time, ecological integrity is reworked to make space for human wellbeing. By tying conservation to money and economic development to conservation in the conservation economy, human wellbeing is reworked to make it commensurable with ecological integrity. Through these mechanisms, trees, animals and people will find one good, common world to inhabit. However, “putting in order” refers to more than processes of commensuration: it also means instituting the matter of concern as a matter of fact.

### **7.3 Turning the Matter of Concern Into a Matter of Fact**

As should be apparent in the foregoing, the procedures developed by the Kit-Git-Pit to reconcile conservation and development also integrated issues of justice for First Nations. First Nations' interests in control and decision-making were translated into the very structure of the pilot project. Moreover, the *EBM Handbook* explicitly recognized First Nations' interests, while translating them into a project that seeks to reconstitute ecology in order to render it commensurable with economy. On the other hand, First Nations' interests were taken into account in the CIII's efforts to alter economy to become commensurate with ecology.

Additionally, after these processes were fed into the LRMP processes and they had made their final recommendations (Central Coast LRMP Completion Table, 2004; North Coast LRMP Planning Table, 2004), these recommendations were not forwarded directly to the Provincial Government for it to make a decision. There were now two forms of government recognized in the province: the Provincial Government and First Nations governments. First Nations were no longer regarded as one stakeholder among many. Therefore, the recommendations went to a two-year process of "government-to-government negotiations" between the Province and individual First Nations. ENGOs and forestry companies supported the elevation of First Nations to the status of government. However, during these negotiations, the entire network – so tenuously stitched together – threatened to break down. JSP ground to a halt while forestry

companies sought to align themselves with First Nations and the Province rather than with ENGOs. On the other hand, ENGOs were pilloried by their environmental colleagues for squandering the power they had generated in a substandard deal. Attacked by other environmentalists, their alliances – and thus their strength – weakened. Moreover, the alliances that they had made with industry and First Nations strengthened the project, but threatened to shift its focus too far away from ENGOs' goals.

As the environmental sector we're getting shot at from every single quarter because people are basically saying, "Look see, you guys basically made an agreement that's not going to stick, trees are coming down, it's all fucked up," [...] So we're basically losing our social license to even be in the conversation, as the environmental objective. Industry is basically in a place of, "you know what? Maybe we can hide behind First Nations and Governments on this, maybe we don't actually need to be in the conversation with you on this anymore because we're not really that scared of you anymore because maybe you don't have a market campaign that can hurt us anymore." So we all come to a bit of a stalemate.

JP: So did you feel that, you know, that vision that you were telling me about before, was that kind of in threat?

Interviewee: (0:17:38) That was our dark night of the soul. That was the point at which everybody just kind of went, "Okay, did we really screw up? Well maybe we were dreaming too big and yup, maybe we were wrong." [E - K11: 068]

This was ENGOs' "dark night of the soul" during which they wondered if they had indeed made a giant mistake. As Callon (1986) reminds us, there is no inevitability to networks. Realities, whether they are knowledges, technologies, or land use agreements, do not materialize because they are intrinsically true, superior, or good. Moreover, there is no force behind them that brings them into being. Rather, realities are produced through tenuous processes of network formation. Elements are cajoled to enrol in a network, but if they defect, the network will not survive. ENGOs' "dark night of the

soul” arose from the possibility that the matter of concern that they had worked so hard to institute as a matter of fact, could so easily fall apart. However, they managed to regroup and commit the industry to certain “milestones” along the way to implementing EBM. Eventually, the agreement was announced on February 7, 2006.

The Provincial Government called it a “New Vision for Coastal BC” (Government of British Columbia, 2006). Of the 6.4 million hectares covered by the agreement, 1.8 million received protected status. The remainder, aside from “biodiversity areas,” are open to industrial forestry operations. However, the agreement does not simply segregate ecological protection from industrial exploitation via zoning: under the agreement, the two objectives bleed into one another. On the one hand, logging is to operate under EBM. On the other hand, protected areas do not restrict all types of economic practice. First Nations had a key hand in writing new “Conservancy” legislation, ensuring that the establishment of Class A Parks did not preclude their interests. Along with expected practices such as ecotourism, other opportunities such as shellfish aquaculture will be permissible. As well, mining and small scale hydroelectric development will be permitted in areas zoned as “biodiversity operating areas.”

As reported in the introduction to this dissertation, the agreement attracted international attention. The Province told the world that, here in BC, “Provincial land use decisions for the Central Coast and the North Coast will preserve some of the most spectacular, ecologically diverse regions in the world” (Province of British Columbia, 2006). Moreover, these decisions are the result of “an unprecedented collaboration between First Nations, industry, environmentalists, local governments and many other stakeholders” (Province of British Columbia, 2006). These actors and their “diverse

interests have come together in a unique partnership that will support economic opportunity while preserving some of B.C.'s most spectacular wilderness areas and protecting habitat for a number of species" (Province of British Columbia, 2006). Meanwhile, First Nations representative Dallas Smith suggested that the agreement means that "our people have a more active role in how and where business is done in our traditional territories, and we can move toward cultural, ecological and economic stability in this region" (as cited in Province of British Columbia, 2006). Finally, the Province announced that the elements of protection and EBM "demonstrate B.C.'s commitment to sustainable forest practices, something international markets are demanding" (Province of British Columbia, 2006).

The network of trees, valleys, bears, activists, the public, markets, forestry companies, and First Nations assembled by environmentalists was now an agreement. Its various elements and features were represented and mobilized in a document and an announcement that travelled around the world. Yet, it was a shaky network and controversy remained. Like all constructed realities, the GBR remains fragile and may fall apart. As in Callon's (1986) study of the domestication of scallops, dissent is an ever-looming possibility. Callon showed how the network, put together by scientists to support their knowledge of scallops, fell apart once fishermen (who up until that time had accepted their representation without protest) rejected their role and fished the scallops. The scallops dissented by refusing to anchor. Scientific colleagues dissented by criticizing the scientists' findings. In the case of the GBR, there are also important degrees of dissent from all sides, which may eventually lead to the undoing of the agreement.

Environmentalists' criticism of the RSP environmentalists has largely to do with fundamental concerns about EBM: the slowness with which it is being implemented; the lack of clarity with which it is understood; and its appropriateness as "compensation" or "safety net" for a lower than desired percentage of protected areas. In the absence of EBM implementation, by some accounts, logging has increased in the central coast to a level "unprecedented in 15 years" (McAllister, as cited in Blunt, 2007). According to Lisa Matthaus of Sierra, BC: "We are [still] seeing clear-cuts, landslides, the same old stuff. Right now the forest industry has a volume-driven model" (as cited in Hume, 2007). Part of the reason for the delay in implementing EBM is the complexity of the task. Since EBM has never been implemented on an industrial scale anywhere in the world, no clear models exist to guide implementation. Discussions are still taking place around what exactly EBM *is* (Sterritt, Our Common Ground Symposium, Vancouver, May 8, 2007). Finally, and linked with the uncertainty continuing to surround it, there is a concern that EBM is not sufficient to compensate for actual protection. In 2003, the CIT recommended that 44-60 % of the GBR be protected from industrial activity. Environmentalists agreed to the lower level proposed, 32 %, due to the compensation that would be provided by EBM. However, some see this as a risky strategy. As a member of the Raincoast Conservation Society writes:

Designating nearly 70% of the most significant expanse of coastal temperate rainforest on earth as a laboratory for an untested experimental forest management regime and calling it a 'safety net' would appear to be an exercise in 'faith-based' conservation. (Genovali, 2005)



These concerns threaten to disrupt, halt, or even undo the delicate new world being stitched together in the GBR. As expressed by Simon Jackson of the Spirit Bear Youth Coalition:

With the agreement coming under increasing fire from those that believe progress has been too slow or simply inexistent, there is growing speculation that the historic agreement may come undone altogether – possibly pushing all parties back to the drawing board yet again. (Jackson, 2007)

Importantly, some in the environmental community is criticizing the agreement. A key criticism is that the RSP, in agreeing to the deal and ceasing its market campaign, gave up both its source of power and logging moratoria. As Earth First!er Zoe Blunt (2006) writes:

It's difficult to sum up the anger and betrayal some BC enviros and First Nations feel about the Great Bear Rainforest agreement. Certainly the Big Greens have squandered a tremendous amount of trust and goodwill. I can't imagine what will happen if they were to come back to the Nuxalk or the Valhalla Wilderness Society and say, as they did when the process started, "We need your help – let's work together. Trust us. We're on the same side; we can all be winners."

Indeed, grassroots groups have been critical of the agreement. The Valhalla Wilderness Society (n.d.) complained that EBM guidelines, originally based on biological research, had been so watered down by the Government that they are now too weak to ensure protection of wildlife. The organization also complained that the 2009 phase-in was too slow, allowing destructive forestry practices to continue in the interim. As noted above, the RCS has also voiced criticism of the deal. As reported by Butler (2006),

Raincoast [Conservation Society] never liked the process that produced February's agreement. It remained aloof and tried, unsuccessfully, to persuade its environmental allies to do the same. "They gave up a big card by participating," says McAllister. "Everything that we predicted has happened."

Additionally, the SBYC has complained that not enough of the spirit bear's habitat has been protected, resulting in the organization's leader, Simon Jackson, refusing to be present during the 2006 announcement. SBYC criticizes plans to log Green Inlet, an area of the spirit bear's range not protected by the Spirit Bear Conservancy. SBYC's stand pits them not only against the Province, but also against the Kitsoo First Nation, who own the license to log the area.

Criticisms such as these affect the "mobilization" moment of translation, as they question RSP's authority to represent the interests of nonhuman nature and the desires of other environmentalists. The announcement and much press coverage may have presented the agreement as an "unprecedented" achievement of collaboration, but dissent continues to rage. To some small environmental groups, the JSP is an example of corporate environmentalism, an approach that prefers to work behind closed doors with power brokers while ignoring the interests and desires of smaller groups. Given the fact that the environmental movement in BC has largely been consistently local and grassroots (Wilson, 1998), the challenges that RSP face may not go away.

Moreover, the mobilization of the agreement faces challenges from other groups. As described earlier, non-aboriginal forestry dependent communities reacted strongly to news that ENGOs and forestry companies were negotiating about resource management on public lands. From the perspective of some non-aboriginal community members, local

workers' interests have not been protected by the CIII agreement, and have been ignored in the interests of achieving First Nations' cooperation. Their campaign to shut down the alliance (Operation Defend) failed to get off the ground and some feel that they have been systematically excluded and marginalized throughout the network building process. This is a significant shift in relations of power as local, non-native, forestry-dependent communities, through their spokespeople mayors, once had clout due to their key position in the 'compact' between government and forestry industry (Wilson, 1998). However, their power relative to the other groups has diminished, as indicated in the following quotation.

You've got these four parties, you know, sort of Governments over here, and these two ENGOs are being the RSP and the CFCI crowd over here, so there's that tension between Governments and [ENGO and forestry] stakeholders. And then you've also got different types of tension between each of the four of them and then you've got this outer ring of stakeholders and those on the outside that are still, you know, important, but perhaps just not quite as influential around these issues. [C – EK: 362]

These other stakeholders in many cases no longer have a way to engage in collaborative decision-making processes.

You've got a bunch of stakeholders who've got those levels of expectations [of collaboration] and have been used to being engaged in that way. All of a sudden, being told "Nope. Forget it, you're not in, you're not in the room, you're not part of the conversation. In fact, we're making the decisions." [E - KI2: 152]

It is true that a mechanism has been designed specifically to enable stakeholder engagement in decision-making and implementation of the agreement – the Plan

Implementation Committees (PIMCs) that are made up of the same groups that participated in the LRMPs. However, according to one interviewee,

The PIMCs were specially manufactured by all parties at the governance level to be as ineffective as possible [...] Almost no budget, they've got, I'm not going to say these words, I was about to say terrible words. They've got a series of individuals on them who are not the right individuals to be engaged in an innovative, visionary, and creative solution building conversation about how to implement these decisions. They have, basically, the victims and the folks who are least empowered and least intellectually capable of having conversations that are required. So they basically stacked it up so that it becomes a place where you can just waste a lot of time. You certainly can't effectively engage in any kind of stakeholder decision-making or collaboration. [E - KI1: 156]

Two different models are at play, with communities attached to one but not the other.

From the perspective of one interviewee:

I think one of the fundamental flaws of this process is it was a political process – it was not a community, grassroots process. And in terms of a revolution, I think a lot of people think this is a wonderful thing, and I would say that's true if you are politically motivated, highly organized, influential organizations who want to tell local people how to live their lives. Um, there was a different grassroots revolution in the '90s called LRMPs which was entirely the opposite. And I think people who, um, favour local control, or local influence over decisions, ah, this is entirely the, the opposite model. The power was not held by local people. [PG – LL: 082]

This view was articulated by a number of interviewees, such as the following:

[I] don't see a visible place in the wiring diagram, the flowchart, I don't see a visible place for a meaningful engagement of stakeholders, or collaborative engagement of stakeholders.

JP: Even with the Plan Implementation Committees?

Interviewee: (0:15:21) Particularly with the Plan Implementation Committees. [C – BH: 108]

The interviewee continued with a particular example:

When the, legal objectives are being finalized, the Minister didn't meet with the PIMCs, the Minister met with JSP. Why did the Minister meet with JSP? Why didn't he just tell them to pound sand? I'm the Minister, you're JSP, go fuck yourself. You know, because he's the Minister, and they're JSP, and he doesn't have all the marbles in his bag, they've got some marbles, and they just might be able to blow him right out of the water. [C – BH: 144]

ENGOS remain connected to new governance networks made up of the Province and First Nations because, for one, ENGOS are tied to the marketplace and, for the other, they are tied to science. Other stakeholders, by contrast, do not have these allies and are thus “left out in the cold”:

What the Government ended up doing was, um, taking the product of the land use planning table, and, ah, entering into the G2G [Government-to-Government] process, um, with local First Nations, ah, kind of left the rest of the table, um, in the cold. Like if I talk to my truck logger buddies, and the union, and community people, and those folks, I think that, um, they would probably say that they were, ah, not terribly satisfied with how the G2G process worked. [C – BH: 146]

As these quotations demonstrate, local communities do not feel that they are adequately represented in the final agreement. A space has been made for them in the form of the PIMCs, but they feel that this structure has been designed to render local communities' interests and concerns ineffective, rather than include them in decision-making in a substantial way. Communities have gone from a position of collaboration to one of consultation, where their membership is viewed as tokenistic. It is interesting to witness how the Provincial Liberal Government has abandoned its traditional power base of local resource communities. By dealing with First Nations as governments and by

accepting decisions made by a coalition of environmentalists and forestry companies, the Liberals have neglected local communities. There is a touch of irony here, since original conservation economy plans included a component specifically designed to take into account the interests of impacted communities. The plan would have included a “socially responsible investment” component that would have been aimed at impacted communities on northern Vancouver Island and elsewhere. However, the Liberal Government refused to consider the proposal since they considered it to be too much like a subsidy and a disruption of the operation of free markets. Will local communities return to haunt this agreement? What will happen with a change of government? While it is difficult to see at this point in time how it would happen, it is possible that dissent from communities that could make the GBR fall apart.

Beyond unhappy environmentalists and disenfranchised communities, other excluded parties may come back to haunt the GBR. Not all First Nations, for example are happy with the agreement. In fact, two First Nations – the Nuxalk and Lax Kw’Alaams – have never signed on. Some people in the forestry industry are also bitter and feel that they got a very bad deal. Individuals in the Provincial Government have expressed dissatisfaction with the process. Some nonhumans have also been left out: for example, some argue that too little information about coastal wolves resulted in inadequate attention paid to their habitat needs (McAllister, 2007). The GBR collective, like any association of humans and nonhumans, is fragile, in constant need of renewal, and at risk of falling apart.

Even in February 2006, the agreement remained a “vision.” Even more work was required to implement it and make it a reality. As noted in the government announcement:

The decisions pave the way for finalizing government-to-government land use agreements with First Nations. This will enable the formation of Land and Resource Forums allowing the Province and the First Nations to work together to finalize and implement land use plans that incorporate the cultural values and ecological and economic interests of the First Nations. (Government of British Columbia, 2006)

Subsequent to government-to-government negotiations, protocols were signed between the Province and First Nations (Coastal First Nations et al., 2006; KNT First Nations et al., 2006) committing them both to “full implementation of EBM by March 31, 2009.” Just what “full implementation” means was defined by the new co-governance institution – the Land and Resource Forums (LRF) – designed to implement the decision.

The LRFs specifically tied EBM to the *EBM Handbook* by defining EBM as:

... an adaptive, systematic approach to managing human activities, guided by the Coast Information Team EBM Handbook, that seeks to ensure the co-existence of healthy, fully-functioning ecosystems and human communities (Joint Land and Resource Forums, 2007, p. 1)

Furthermore, the LRFs specified a number of conditions that would have to be met in order to consider EBM as fully implemented. First, a “governance framework” would have to be in place. This framework involved collaborative mechanisms linking First Nations and the Province, including the LRFs and collaborative management agreements. Additionally, the framework included collaborative mechanisms for stakeholders,

including an EBM Working Group and the Plan Implementation and Monitoring Committees.

Second, mechanisms to foster human well-being, or “socioeconomic policies and initiatives that seek to achieve a high level of human wellbeing over time” (Joint Land and Resource Forums, 2007, p. 1) had to be in place. These mechanisms included the institutionalization of the CIII in the Coast Opportunities Fund (made up by the Coast Economic Development Society and the Coast Conservation Endowment Fund Foundation); renewal of the Coast Sustainability Trust (mitigation measures for workers adversely affected by the agreement); regional economic development policies and initiatives; and capacity building programs. Third, mechanisms had to be in place to maintain ecological integrity. Such measures would “seek to achieve a low level of ecological risk overall in the Central and North Coast, over time” (Joint Land and Resource Forums, 2007, p. 1). This included land zones, which included protected areas such as conservancies and biodiversity areas; landscape reserves; and specific land use objectives to guide operations.

Fourth, in recognition that full implementation referred to implementation of a *plan* to achieve EI and HWB over time, rather than implementation of EI and HWB themselves by March 31, 2009, the LRFs specified that an “adaptive management” mechanism must be in place to “support the further development and implementation of EBM beyond 2009” (Joint Land and Resource Forums, 2007, p. 1). This included a system for monitoring and evaluating EI and HWB; a data management system; and a decision support and analysis system. Finally, the LRF required that implementation would involve “a suite of flexibility tools that can be used to facilitate transition and



sustain First Nation and local community well-being” (Joint Land and Resource Forums, 2007, p. 1). These “flexibility tools” included the ability to manage to different levels of risk in different watersheds and landscapes. It also required the ability to conduct operations at different levels of risk; and, for specified periods of time, to allow higher levels of resource development activity than would otherwise be the case given strict adherence to the risk guidelines.

## **7.4 Conclusion**

All of these conditions were in fact met by March 31, 2009, allowing the Government to declare that: “The Province has met its commitment to establish an Ecosystem-Based Management (EBM) system for coastal B.C. by March 31, 2009” (Government of British Columbia, 2009). In this respect, the matter of concern first articulated by a joint ENGO-forestry company group was turned into a matter of fact. As I described, the matter of concern took shape when the joint ENGO-forestry industry group established itself as an obligatory passage point for the network that would form around it. In contrast to the tendency within the modern constitution to separate nature and society (while illicitly associating them), the joint ENGO-forestry industry group launched a project that *explicitly* attempted to mix them together. Thus, the project sought to bring together a variety of human and nonhuman groups and to articulate their interests. In a further shift away from the modern constitution, one of the groups so designated – First Nations – strongly rejected the idea that experts could alone go out and

find the facts with which to bring closure to public debate. The attempt at premature closure through science, as we saw in earlier chapters, was an unfortunate tendency that reproduced the modern constitution. By contrast, First Nations argued that all relevant groups should be part of a common research endeavour. Here, facts and values, science and politics, also began to mix. The focus was on making sure that the relevant parties were part of research processes so that the questions investigated would be deemed “appropriate.”

On this basis, environmentalists, forestry companies, and First Nations set out to articulate their interests via the “occasion” offered by the “proposition” of EBM. The work that went into the *EBM Handbook* helped define the collective that was to emerge. The process of “taking into account” is ensured by the principles of assessment and collaboration. The process of “putting in order” is effected through mechanisms designed to commensurate ecology and economy, via EBM, and to commensurate economy and ecology via the conservation economy. As I have detailed in this section, these new arrangements among people, trees, and animals has been instituted as a (revisable) fact.

As a result, the modern constitution approach to BC wilderness politics has been replaced with the collective. This shift was not produced by something external to the networks themselves – by some social structure or force operating above the action. Rather, the shift resulted from other shifts *within* the networks themselves.<sup>55</sup> Starting at the beginning, the chain of translations inducing this shift is as follows. First, there were

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<sup>55</sup> From the perspective of some members of local communities, the shift is the result of *external* actors – ENGOs – who have dominated *local* groups. However, while acknowledging that the shift in networks is contested, my point here is that such a shift is produced by network processes, and not by social structures or forces.

the central and north coasts which had their own set of relations but which environmentalists were not very interested in (the “Forgotten Coast”). Then Ecotrust and Conservation International mobilized the coastal forests in the form of data and maps to translate them into the “Coastal Temperate Rainforest.” They further translated the coastal temperate rainforest into a format that would interest environmentalists: the “Watershed Inventory.” This got the McAllisters interested and they translated this inventory into stories, images and lived experiences. The Sierra Club also became interested and they translated the rainforest and its inventoried pristine watersheds into a vaguely defined area – the “Big Green Blob.” The name “Great Bear Rainforest” brought these different translations together – a symbolic, scientific, delimited area. Note that, while it might be tempting to focus only on the symbolic, representational aspects of these translations, one would be forced to ignore all the material work that went into producing them. Constructions they are, but not social constructions only; devices, data, rain, planes, photographic equipments, all of these things participated in the construction of the GBR.

But the chain of translations did not stop there. These translations preceded and set the stage for the translation of the GBR into processes of production and consumption. Forest products associated with the GBR became dangerous, risky, unacceptable commodities. Ironically, it was the result of the work of trying to sever economy from ecology that produced a shift that associated ecology and economy even more closely. In particular, environmentalists had spent so much time explicating the networks of production and consumption that link the coastal forests to people, businesses, ships, and products in far away places, that environmentalists found that they

had to accommodate economic practices in their vision for the forests. While the original goal was to sever the networks that they uncovered, protecting the GBR as one large park that no longer contained any economic links, the very success of their campaign ended up translating these goals. As I described in this chapter, ENGOs' negotiations with the forestry companies resulted in a new hybrid group that was focused on both conservation and development. The new goal was to save the forests *and* support the forestry industry. As I have shown, this was a major turning point for environmental politics in coastal BC, as evidenced by the backlash against the new group. Moreover, I have shown how the success of ENGOs' campaigns to reveal the economic dimensions of the GBR rendered them unable to depict the forests as pristine nature: they were forced to recognize that First Nations lived there and that they had legitimate claims to economic well-being. The result was the development of a new form of environmental politics – one that replaced attempts to separate society and nature with attempts to create a new common world for humans and nonhumans.

The collective is a process and the process continues through implementation of the plan. This is a complex process involving even more science, even more politics, and even more relations among environmentalists, forestry companies, First Nations, communities, and the Provincial Government. The EBM Working Group (EBM WG) is engaged in projects seeking to determine indicators of human well-being and to define protocols for adaptive management. The Plan Implementation and Monitoring Committees convene meetings and rail against the EBM WG for not conducting research “on the ground.” JSP sponsors “EBM Learning Forums” to inform local communities about this new approach to land (and human) management. First Nations translate their

land use plans into “Detailed Strategic Plans.” ENGOs engage with First Nations to try to influence the development of those plans. RSP runs “scenarios” on computer programs to determine how much old growth needs to be retained. The Provincial Government adjusts their Land Use Orders on the basis of public input. Individuals move from government positions to environmental groups, from environmental groups to the Provincial Government, from the Provincial Government to First Nations groups. Travel journalists write stories about encountering grizzlies in the Great Bear Rainforest. Ian McAllister forms a new environmental organization and writes a new coffee table book, this time about the coastal wolves of the GBR. Money will be disbursed to First Nations for conservation research and entrepreneurial green businesses. Critics criticize. But, at some point, one has to accept that, while the network process continues, grows, transforms and changes, the analysis has to stop.

## 8 Conclusion

This analysis examined a case of integrated natural resource management from a network perspective. In doing so, one of its goals was to complement existing research perspectives on INRM by providing analysis of how INRM projects arise, evolve and change over time. Conventional approaches to INRM research are highly valuable and can teach us about the importance of such things as local institutions, trust, social networks, cognitive and cultural frameworks, structures of power, representational practices and the resilience of complex systems. However, as these perspectives tend to make a number of assumptions about the processes that they seek to explain, certain aspects of INRM are left unexplored. In particular, conventional research tends not to examine INRM as a complex and contingent innovation that produces new groups, interests, knowledges, institutions, and relationships with nonhumans. Armed as they are with pre-determined concepts, categories and checklists of principles, conventional perspectives have difficulty when seeking to examine the production of new concepts, categories, and perspectives.

I sought to examine the emergence of the GBR as the outcome of a process of network building. Using concepts associated with actor-network theory – such as translation, obligatory passage point, panorama, oligoptica, and matter of concern – I traced the work of environmentalists to construct a network that would help them achieve their aim of protecting BC's central and north coasts from status quo forestry. I systematically worked with transcripts of interviews with 34 centrally-involved individuals purposefully selected from environmental organizations, forestry companies,

First Nations, local communities, and Provincial Government ministries, as well as a large number of documents – from news releases to scientific reports – to reconstruct this process of network construction. My principal strategy was to “follow the actors themselves” in order to reconstruct or compose the network; that is, I came to the field without any presuppositions or hypotheses about what I would find, instead seeking to learn (from interviews and documents) how the actors stitched together the elements of the GBR agreement. In the analysis, I focused on the impact of such network building on relations of power, connections between science and politics, and the relationship between society and nature.

I found that environmentalists simultaneously used science and politics to “problematize” or redefine – Callon’s (1986) first moment of translation – the central and north coasts into a material and discursive reality that could interest other groups sufficiently to usher in a campaign to save it. In the process, environmentalists defined the identities and interests of groups that would be essential to their project. Bears became the gentle but fierce representatives of the coastal temperate rainforest, an ecosystem of global significance. The BC wilderness preservation movement’s interests were redefined from protecting isolated remaining valleys to focusing on comprehensive large systems. Forestry companies were redefined from concerned only with profit to concerned with conservation. Finally, First Nations were represented as fundamentally concerned about the integrity of the territories but in need for development that could overtake long-term interests with short-term solutions.

I also examined environmentalists’ hard work of “interestment” – Callon’s (1986) second moment of translation – to enrol these sometimes recalcitrant groups into their

emerging network. The dispersed, dispirited, and burned out BC wilderness preservation movement was convinced of the value of forming a coalition (the CRN) to save a huge, comprehensive area through an intervention aimed at healing, personal growth, and spirituality. At the same time that individual members of the movement worked on finding their spiritual connection to a larger unifying force, negotiations and planning sessions were held to enrol them into a comprehensive campaign. The coalition that emerged in turn sponsored scientific work to transform bears into umbrella species via the concepts of conservation biology, and were systematically used to filter the coastal forests. This scientific and political intervention helped define bears and forests in ways other than those used by others, such as a hunting resource and a “timber supply area,” respectively. Moreover, the bears were enrolled as allies to convince other groups to join the network. In particular, retail customers of BC forest products were persuaded to identify (or be identified) as environmental activists when bears (in name and in the form of a giant blow up model) and environmentalists attacked their suppliers and stores, thereby threatening to cut the link between retailers and the consumers of their products. This shift in identity, in turn, was directed toward cutting forestry companies off from their customers.

The negotiations that followed over the “enrolment” of the various groups – Callon’s (1986) third moment of translation – were intense. I examined how forestry companies altered their identity to become the Coast Forest Conservation Initiative, and how they engaged with environmentalists in a standstill agreement so that they could work toward common solutions. It was at this point that environmentalists underwent an alteration of their own. The CRN imploded and the environmentalists that emerged out of



it exchanged properties with forestry companies, agreeing that forestry would be an important ongoing activity for the region. Around the same time that they shifted their identity to the Rainforest Solutions Project, other groups began to loudly protest their enrolment in the network. Environmentalists criticized the environmental negotiators for being “sell-outs” and betraying the goals of the movement. The public decried decision-making over public lands taking place behind closed doors. Forestry-dependent communities attempted to launch a campaign to fight the new ENGO-forest company coalition. One forestry company (Interfor) dropped out of the negotiations. In response, Greenpeace dropped out of the negotiations and resumed its campaigns against Interfor. The Provincial Government suggested that the coalition was not a legitimate decision-maker and that it should rejoin government-sponsored negotiations. First Nations seized the opportunity to enrol the emerging network into its own interests in recognition and control of traditional territories. In response, the ENGO-CFCI coalition, consolidated as the Joint Solutions Project, shifted its focus and blended its changing goals with the interests and goals of other groups. As I detailed, the “Meetings at the Met” were particularly instrumental in this regard.

The contested nature of the GBR process and outcome indicate difficulties with the “mobilization” – Callon’s (1986) fourth moment of translation – of the network of trees, bears, environmentalists, forestry companies, First Nations, local communities and others that are necessary for the agreement to stand. As I detailed in Chapter 7, the final agreement is contested by a number of groups, who argue that their interests are not adequately represented – despite the fact that the agreement seeks to include, blend and reconcile many interests. While the agreement has now stood for four years, if the

network supporting it falls apart, so too can the agreement; at the very least, the GBR is subject to future translations.

By tracing this chain of translations, I showed that the GBR agreement is the outcome of a heterogeneous network. The elements of this network – their identities and interests – are defined via their relation with other members of the network. The network is neither natural nor social: it refers neither to a “pristine wilderness” nor to human ideas or relations among human groups. Rather, the network is hybrid, comprised of a diverse mixture of people, devices, texts, and nonhuman species. I did not try to explain the agreement as the outcome of factors which may be specified before the case itself – such as trust, cognitive frameworks, dominant discourses, capitalism, or social-natural systems – but examined how the agreement emerged as a result of associations established among a variety of groups and elements.

ANT has been criticised for failing to adequately attend to the social structures that distribute power and produce hierarchy in society. It is instructive, therefore, to see the extent to which an ANT approach has enabled me to illuminate issues of power and coercion in this case. As I showed, environmentalists felt that they had little power in relation to other groups – particularly forestry companies – in the decision-making forum sponsored by the Provincial Government. Consequently, they worked outside of this forum to “generate” power. As my analysis showed, this involved investigating and intervening in the network constituting forestry companies’ power – that is, their connection to customers via the commodity chain. At the same time, it involved assembling a network made up of bears, consumers, retailers, and eventually forestry companies themselves. Therefore, the analysis shows how power is an effect of networks.

Moreover, the approach enabled me to explore how not only humans but also nonhumans participated in processes productive of power. Environmentalists acted with and through a variety of nonhumans. Boats, planimeters, bears, and forest products all participated in the course of environmentalists' actions. Without these nonhuman others, environmentalists' actions could not have travelled far.

Does this mean that nonhumans such as bears and 2X4s have agency and intentionality? Often, nonhumans were passively enrolled: for example, I did not register any degree of negotiation or contestation of the roles defined for coastal bears by environmentalists. Indeed, the *origin* of the action appears to begin with humans, who *subsequently* enlist the support of nonhumans in order to achieve their aims. This finding lends itself to a weak version of ANT that recognizes that “while humans are enmeshed within networks of heterogeneous relations, they retain distinctive qualities as members of such networks” (Murdoch, 2001, p. 127; see also Castree & MacMillan, 2001). Nevertheless, it is important to point out that the “distinctive characteristics” of environmentalists, such as their intentions and ability to create change, were only realizable in and through nonhumans. Moreover, it is quite possible that, in this case, nonhumans were indifferent to their enrolment in environmentalists' network, just as humans can sometimes be (such as fishermen in Callon's [1986] analysis). It remains open to other researchers to study cases in which nonhumans were the originators of actions (see for example Haraway's [2008] suggestion that dogs domesticated humans). Additionally, the analysis shows that nonhumans acted through humans as their spokespeople. Bears were very present in the dispute, as symbols, costumes, displays,

models, and analytic devices. Many of the conservancy areas eventually agreed upon were determined on the basis of bears' habits (i.e., their territorial range).

Environmentalists worked hard to assemble a network that would help them achieve their aims. Does this mean that they were ultimately in control of the process? Is this a Machiavellian account of environmental politics? As my analysis shows, environmentalists also underwent important transformations as they became connected to others in their emerging network. They managed to generate power, but that power was shared and distributed with others in the network. Environmentalists could get nowhere if they did not have bears as allies, if they could not trace the commodity chain, if they did not have retail customers to make demands on forestry companies, if they had not joined forces with forestry companies, if First Nations were not on board. The power of environmentalists to make decisions about BC's coastal forests was contingent on their membership in a network. Their position in that network is powerful, since they were able to speak for others, such as bears, the coastal temperate rainforest, global interests and, via their membership in JSP, for forestry companies. Yet, they did not speak for everybody – First Nations in particular demanded that they speak on their own behalf. Moreover, they gave their power of speech over to the Provincial Government in order to not appear too powerful. Forestry companies – via *their* membership in JSP – could claim to speak for environmental interests. First Nations could also take this role. Environmentalists managed to convene a network, but in the process, had to give up control and ownership of its aims, allowing others to redefine its purpose. From an initial focus on creating a giant park, environmentalists moved toward reconciling ecological integrity and human well-being, reforming forestry practices, and supporting the

governance and economic development aspirations of First Nations. These were not typical roles for environmentalists, but ones they took on by virtue of their position in the network.

The analysis thus did not flatten differences or suggest that every element in the network has the same degree of power, as critics of ANT charge (Shapin, 1988, p. 547; Laurier and Philo, 1999: 1016). Asymmetries exist, but I did not assume them before hand. Rather, the analysis shows how they emerged. Environmentalists shifted from a position of relative powerlessness, to relative power. First Nations took advantage of the emerging network to leverage legal decisions, thereby launching themselves into the status of government rather than stakeholder. The Provincial Government, originally the primary decision-maker, saw its power drained as groups worked outside of its bounds to determine the contours of resource policy before re-importing these ideas into official channels for the purpose of legitimacy.

ANT has also been criticized for focusing only on the network builders and not on those marginalized by such networks. In this study, the marginalized might be seen as local non-aboriginal communities. While previous to the network that formed around the GBR these communities enjoyed a degree of political clout, they have come to feel themselves “left out in the cold.” Additionally, local First Nations may also feel disempowered by this process. It is indeed a limitation of this study that the views and perspectives of these groups are not featured more prominently. However, I encountered problems of access – with key community representatives and First Nations communities ignoring or denying requests to be interviewed. Further research should look at the

impacts of this agreement on individuals “on the ground” to balance out my focus on the decision-makers.

The network perspective also provides insight into the simultaneously scientific and political work involved in network construction. Politics and science are neither separated in my analysis, nor assumed to pertain to distinct ontological domains. I did not analyse the GBR as a case of bringing *facts* about temperate rainforests, bears, ecosystem integrity and the like to bare on a separate political process in order to inform competing interests, claims and perceptions and *values*. Neither did I analyse the GBR as a case of bringing politics to bear on nature; that is, as a pure social construction in which social actors competed to define the forests in terms conducive to their interests. In contrast, I undertook a symmetrical analysis in which science and politics, material reality and discursive representations, nonhumans and humans were analysed for the ways that they participated in the construction of a common heterogeneous domain. Science and politics were intertwined in processes that sought to enrol actors and redefine their interests. From the definition of the coastal temperate rainforest, to the enrolment of bears as umbrella species, to analysis of the commodity chain linking trees and customers, to the deployment of concepts of variability, time and scale to find spaces for human disturbance in forest ecosystems – all of these processes and practices focused on “matters of concern” more than they did on “matters of fact,” and were simultaneously scientific and political.

Does this mean that political interests tainted true, objective science? Alternatively, does it mean that political questions were surreptitiously answered through apolitical (scientific) means? These are always possibilities. Particular interests can bias

the pursuit of knowledge and particular interests can be dissimulated in apparently neutral representations of reality. However, the potentially problematic ways in which science and politics can be connected does not necessarily entail that science and politics ought to be kept separate. Indeed, the connection between science and politics in INRM is inevitable, as it explicitly questions scientific authority, distributing the capacity to ask questions and determine important issues and concerns from experts to ‘citizen scientists’. Accordingly, the requirement is to ensure that the relationship between science and politics is done well, and to take responsibility for its hybrid products. In our study of these processes, there is no need to, as Bloor (1999) puts it, drive “a wedge between nature itself and the descriptions of it provided by the knowing subject” (p. 94). We do not need to restrict our analysis to belief systems, modes of representation and social interests while remaining agnostic about the reality to which those descriptions putatively refer. On the other hand, we also do not need to jump to the conclusion that an analysis of processes that produce “facts” entail that the latter are only a social construction, as Amsterdamska (1990) implies. Instead of making a distinction between word and world, reality and representation, ontology and epistemology, in this analysis I examined how the world is loaded into discourse through means that are both material and discursive. The construction of the coastal temperate rainforest, its specification into an inventory of watersheds, and the filling out of those watersheds with photos and stories, involved many steps that used a heterogeneous array of means – devices, concepts, metaphors, and lived experience – to produce a constructed and real outcome: real *because* it was constructed.

Finally, the network perspective adopted in this dissertation provided insight into the actors' specification of the conceptual link between nature and society. Rather than beginning the inquiry with an assumption that "nature" and "society" are pre-existing spheres that can be drawn on as conceptual resources to explain outcomes, I simply focussed on network formation and examined nature and society as outcomes of processes that sought to purify those networks. The Conservation Area Design's attempt to separate social from ecological elements, the attempt of ENGOs to separate the commodity chain into nature and human economy, and the depiction of forests and companies as connected yet separate in ENGO's newspaper advertisement were all analysed as efforts to purify heterogeneous networks into "nature" and "society." However, perhaps the most interesting feature of the case is how environmentalists came to replace attempts to purify the networks they formed with attempts to reconcile ecology and economy; that is, how they worked to develop a collective of humans and nonhumans. In particular, I analysed the *Ecosystem-Based Management Handbook* and the conservation economy for the procedures they contained to mix humans and nonhumans together in one *common* world.

The analysis presented in this study provides evidence for the utility of a network perspective in the analysis of INRM projects. In particular, it helps provide insight into important issues of power and hierarchy, science and politics, and the relationship "between" nature and society. It does not replace other perspectives, such as common property, social learning, political ecology, social constructionism, and resilience theory. Instead, the network perspective can provide a complement to those other ways of understanding and analysis. It is particularly well-tuned to exploring and examining the



complex and contingent ways in which INRM projects emerge, develop, and evolve. The network perspective can help us analyse INRM as a mechanism of innovation – a set of practices that create new groups, new knowledges, new institutions, new interests, and new sets of associations “between” humans and nonhumans. This approach can help us examine the development of collectives before they are packaged into black boxes and allow us to determine whether concepts and categories such as “nature” and “society” are appropriate ones to apply – particularly by “following the actors themselves” to see if they apply them to their own networks.

The approach taken in this study may also be of use to the actors themselves. As the analysis shows, processes of network building are central in campaigns to conserve areas of land. Activists can learn from this study how environmentalists went about constructing scientific and political realities and how they interested others in their concerns. They can learn how power to affect change was generated. They can see the importance of tracing networks themselves (such as the commodity chain) in order to find places of leverage. As Latour (2005) notes, if the status quo is represented as propped up by huge, overpowering forces, there is little that can be done. If, however, opponents are recognized as comprising of intricate and delicate networks, then there are multiple places where action becomes possible. The study can also show the importance of letting go of plans, schemes and goals in order to allow them to re-emerge in new forms within the network being formed. A useful lesson is the benefit of letting go of rigid distinctions between nature and society, and entrenched interests, to instead focus on blending interests with others assembled in a network. Focusing on justice, economic

development, and forestry practices is ultimately more productive than restricting focus to ecosystem protection.

Does this mean that the GBR agreement is a perfect example of integrated natural resource management that can be held up as a model for the world? As I have detailed throughout this dissertation, the GBR has received and continues to receive a great deal of criticism. Environmentalists suggest that levels of protection are inadequate to conserve biological diversity, activists say that RSP is power-hungry and does not care about the grassroots, local communities feel that they have been left out in the cold, some First Nations have refused to sign on to the agreement. The GBR and the formation of a collective around it is not a utopian endeavour and the purpose of this dissertation is not to proclaim a final judgement on the agreement. Nor is the purpose of this study to derive principles and conditions that must be in place in order to achieve successful IRNM projects. Critics may see this as a failing of actor-network theory, arguing that the approach makes a distinction between description and judgement (Berg, 1996, p. 256). However, the value and applicability of the GBR as model for other places is up to the actors themselves. It may be difficult to reproduce similar processes of network formation in other places that have different starting networks around decision-making (recall that BC was already institutionally open to the involvement of multiple stakeholders in land use decision-making). Moreover, while I leave ultimate judgements to the readers of this analysis, I do not think that the descriptions of the actor-networks making up the GBR contained herein are politically neutral. Rather, one of its principal conclusions is that any politics and ethics applied to the case ought to be applied to every element in the network (MacMillan & Castree, 2001, p. 220). One cannot assemble a

network and then deny responsibility for half of it. But perhaps even more than this, politics must be attuned to the elements that have become excluded from networks. What about local communities? What about all those who are not in favour of the agreement? If the new collective is to survive, it will have to continually renew itself. This will require change and evolution and it must address itself to the “propositions” that will continuously ask for admission. The Great Bear Rainforest may have been established, but it is a process that will need to be continuously questioned.

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# Appendix: Research Materials

## A.1 Letter of Introduction

THE UNIVERSITY OF BRITISH COLUMBIA



**Dept. of Sociology**  
6303 N.W. Marine Drive  
Vancouver, B.C. Canada V6T 1Z1

Tel : 604-822-2878  
Fax : 604-822-6161  
[www.soci.ubc.ca](http://www.soci.ubc.ca)

Aug 3, 2007

Dear X:

I am a PhD candidate in the Department of Sociology at the University of British Columbia, and I am conducting research on the Great Bear Rainforest (GBR) land use agreement. The Province of British Columbia announced the landmark land use agreement on January 7, 2006. It was forged by First Nations, environmentalists, forestry companies, local governments, a number of stakeholders and the Province. The agreement covers BC's Central and North Coasts, a region commonly referred to as the "Great Bear Rainforest." Among other things, the agreement spells out protection of important ecosystems and adoption of ecosystem-based management (EBM) to guide forestry and other economic operations in the region. The implementation of this historic agreement involves a number of important social transformations that I believe should be documented, described and explained. The purpose of my study is to examine 1) the social processes involved in creating and implementing the agreement, and 2) the social impacts of the agreement. In particular, the study will seek to document 1) environmentalists' international campaign, the Land and Resource Management Process, and the formation of new First Nations' groups, 2) the role of the EBM framework in facilitating an agreement, 3) the challenges involved in implementing EBM, 4) the role of science and other forms of knowledge in producing and implementing the agreement, and 5) the steps being taken to create the new "conservation economy."

I would like to talk with you about some of these processes (as well as other issues associated with the GBR agreement) because of your extensive involvement in the agreement and its implementation.

I plan to conduct interviews between the months of August, 2007 and April, 2008 and would like to meet with you in this time period if possible. Your decision to meet with me is entirely voluntary and there are no known or anticipated risks to participation. If you agree to participate, the meeting should take approximately one hour and a half. The questions I would like to ask you will not be of a personal nature, but will centre on the history and nature of the GBR agreement and ecosystem-based management. However, you may decline answering any questions you feel you do not wish to answer.

All information you provide will be kept strictly confidential in a number of ways. Only myself, my Thesis Supervisor Ralph Matthews and thesis committee member Terre Satterfield will have access to notes, transcripts and interview audio files. All transcripts will be stored in a locked filing cabinet and electronic files will be password protected. All documents associated with your interview will be identified only by code number. The key to these numbers will be kept by myself and will not be publicly released under any circumstances. You will never be identified by name in any thesis, report or publication derived from the completed study, unless you provide your consent.

If after receiving this letter, you would like to meet with me, or if you have any questions about this study, or would like additional information to assist you in reaching a decision about participation, please contact me at the number and address below.

I would like to assure you that this study has been reviewed and received ethics clearance through the Behavioural Research Ethics Board. However, the final decision about participation is yours. Should you have comments or concerns resulting from your participation in this study, please contact the Office of Research Services, UBC, at (604) 822-8598.

Thank you in advance for your interest in this project.

Yours sincerely,

Justin Page

University of British Columbia  
Department of Sociology  
6303 NW Marine Drive  
Vancouver, British Columbia  
Canada V6T1Z1

## **A.2 Example Follow Up Letter**

THE UNIVERSITY OF BRITISH COLUMBIA



Aug 28, 2007

Justin Page  
Department of Sociology  
6303 N.W. Marine Drive  
Vancouver, B.C. V6T 1Z1

604-512-8049 (cell)  
jpage@interchange.ubc.ca

Dear Chief X,

I wrote to you earlier, asking if you would like to participate in my study of the BC Coast Land Use Agreement, which covers the area known as the “Great Bear Rainforest.” As I mentioned in that letter, I would like to learn about the processes involved in creating and implementing the agreement and what you think its likely impacts will be for people living in the region and beyond. I have selected you as an interviewee because of your involvement in the case.

Based on responses I have received so far, I have refined my schedule and know better when I will be in your area. I will be conducting interviews in Alert Bay, Port McNeil, Port Alice and Port Hardy **Oct 22-26**. If you are willing to meet with me to discuss this historic case and your role in it, please contact me by email, telephone or mail (see contact info above – please note that the phone number in the last letter is for the department of sociology, the number above is my cell). We can then schedule a time to meet. If these dates do not work for you, we can schedule another time or a phone interview.

I would very much like the opportunity to talk to you about this case and hope that you can meet with me.

I look forward to hearing from you!

Best Regards,

Justin Page  
PhD Candidate

## **A.3 Consent Form**

THE UNIVERSITY OF BRITISH COLUMBIA



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Aug 21, 2007

### **Consent Form**

#### **Assembling the Great Bear Rainforest: Transformations of Nature, Economy, Knowledge and Governance on Canada's West Coast**

PhD Candidate: Justin Page,  
Department of Anthropology and Sociology  
University of British Columbia  
Phone: (604) 512-8049  
Email: [jpage@interchange.ubc.ca](mailto:jpage@interchange.ubc.ca)

Thesis Supervisor: Ralph Matthews, Professor of Sociology, Department  
of Anthropology and Sociology, University of British  
Columbia  
Office phone: (604) 822-4386

#### **Purposes of the Project**

On January 7, 2006, the Province of British Columbia announced a landmark land use agreement, forged by First Nations, environmentalists, forestry companies, local governments, a number of stakeholders and the Province. The agreement covers BC's Central and North Coasts, a region commonly referred to as the "Great Bear Rainforest." Among other things, the agreement spells out protection of important ecosystems and adoption of ecosystem-based management (EBM) to guide forestry and other economic operations in the region. While the agreement represents the resolution of years of conflict over natural resources, the key task now is implementation. The purpose of this study is to examine 1) the social processes involved in creating and implementing the agreement, and 2) the social impacts of the agreement. In particular, the study will seek to document 1) environmentalists' international campaign, the Land and Resource Management Process, and the formation of new First Nations' groups, 2) the role of the EBM framework in facilitating an agreement, 3) the challenges involved in implementing EBM, 4) the role of science and other forms of

knowledge in producing and implementing the agreement, and 5) the steps being taken to create the new “conservation economy.”

This study forms part of the requirements for the PhD degree sought by Justin Page. The thesis, once completed and accepted, will be a public document. In addition, journal articles may arise from the data and the dissertation may be adapted into a book-length publication.

### **The Interview**

You have been chosen for this interview because of your involvement in the Great Bear Rainforest land use agreement and implementation. I expect each interview to last approximately one hour and a half. With your permission, I would also like to tape the conversation so as to not worry about taking notes while talking, but will not do so if you do not wish to be taped. After the interview, I shall be happy to talk to you about any aspects of the study, or any of the particular questions that arose during the interview.

### **Confidentiality**

I will ensure that your identity is kept strictly confidential in a number of ways. Only Justin Page will have access to notes, transcripts and interview audio files. All transcripts will be stored in a locked filing cabinet and electronic files will be password protected. All documents associated with your interview will be identified only by code number. The key to these numbers will be kept by Justin Page and will not be publicly released under any circumstances. You will never be identified by name in any reports derived from the completed study. However, your comments can attributed to you in reports and publications if you wish.

### **Remuneration**

Your participation in this interview is totally voluntary; no payment for your participation is offered.

### **Your Rights**

We do not believe there are any associated risks to you associated with your participation in this study. However, your participation is entirely voluntary and you are free to refuse to answer any question or end the interview at any time. If you have any questions or want further information about the study, please contact Justin Page at the number and address given above. If you have any concerns about your treatment of rights, you may contact the Office of Research Services, UBC, at (604) 822-8598.

\*\*\*\*\*

### **Consent**

Your participation in this study is entirely voluntary and you may refuse to participate or withdraw from the study at any time without jeopardy to you.

Your signature below indicates that you consent to participate in this study and that you have received a copy of this consent form for your own records.

Signature..... Date.....

Printed Name: .....

## **A.4 Interview Guide**

**(Note: this guide was a resource from which smaller, more tailored guides were developed. See Example of Tailored Interview Guide – Turning Points (TP))**

### **Introduction**

1. I'm studying the Coast Land Use Agreement for my dissertation. I'm focussing on this case because I think that it involves not only important transformations in land use but also in social relations. My field is environmental sociology, and as an aspiring environmental sociologist, I think that we can't change how we use the land without also changing ourselves at the same time. Along these lines, I'm looking at four sets of changes which I think are associated with the Coast Land Use Agreement. I'm looking at changes in governance (so, from a centralized form of environmental governance to distributed and co-governance); I'm looking at changes in economy (so, from businesses based on extracting resources to those based on their conservation); I'm looking at changes in knowledge production and use (so, from an understanding of science as exclusive and infallible to an understanding of science as inclusive of local, traditional and technical knowledges and uncertain and thus precautionary and adaptive); and lastly, I'm looking at changes in representations of the relationship between people and the environment (so, from a trees vs. jobs or people vs. nature kind of framing to more of a people-in-nature kind of framing)
2. My goal is to learn how these shifts are taking place, and what some of their impacts might be for those involved. I'm doing this as someone who is outside the process and I'm trying to learn as much about it as I can. I've collected a ton of secondary material from reports, newspapers, websites, press releases, etc. Besides the fact that I'm starting to worry that I might be buried in the growing mountain of materials I'm collecting, I think that these types of materials tend to be end-of-pipe and give well crafted and polished information. On the other hand, people like you have been inside the process, at the source (so to speak), and have knowledge of some of the inner workings. So, It's really these inner workings that I would like to know about. My approach, in general, is to learn from the people who have been directly involved in the case, to learn what they think is relevant, what's interesting, and what should be pursued. So I'm here to learn from you.
3. This is a pretty open-ended interview. I've prepared a number of questions around some topics that I'm interested in, including [the LRMP, the environmental campaigns, First Nations groups, EBM, the conservation economy]. But I'd just like you to tell me whatever you think is interesting or important about the case that you think I should know.



4. So, why don't we just start off with you telling me how you are connected to the case, and then we'll go from there?

### **General Description of Area**

1. Imagine that I am a traveller and that I just arrived here after travelling around the world. I've heard about this place called the "Great Bear Rainforest," and I'm intrigued, but I don't really know anything about it. Somebody told me that I should talk to you because you *do* know a lot about it. So, here I am! Can you describe this "Great Bear Rainforest" to me?
  - a. What's so special or significant about the place?
  - b. What would you say are its most distinctive features?
  - c. What's your own connection with the place?

### **History of Case**

1. I take it that this place hasn't always been known as the Great Bear Rainforest. I heard that there were some early conflicts and a big planning process that led to an agreement that turned it into the Great Bear Rainforest. Can you fill in a little of this history for me?

### **Key Groups**

1. Would you say (X,Y,Z, identified by interviewee) were the main groups involved in this?
  - a. Are there any other important groups?
  - b. What group or groups are you part of, if any?
    - i. How did you become part of this group(s)?
    - ii. What distinguishes your group from other groups?
    - iii. What is the purpose of your group?
    - iv. Who and/or what does your group represent?
    - v. What were the relationships like between your group and other groups?
      1. Have these changed over time?

## The Project

1. One might say that, prior to the Coast Land Use Agreement, there were many competing visions for the region. Would you agree with this?
  - a. What do you think some of the different visions were?
2. According to the BC government, the Coast Land Use Agreement gives a “new vision for coastal BC.” Would you agree with this?
  - a. Is it a common vision?
  - b. What would you say this vision is?

## Key Actions

1. Would you say that (X,Y, Z, identified by interviewee) were some of the key events or turning points in creating the Great Bear Rainforest?
  - a. Are there other important processes, events or turning points?
  - b. Let’s zero in on a couple of these processes/actions/events/turning points

## Campaigns

1. How far back does the effort to protect the area known as the Great Bear Rainforest go?
  - a. What is the relationship between these campaigns and earlier campaigns in BC?
    - i. Would you say that the Great Bear Rainforest campaign was different from earlier BC campaigns to protect forests from industrial logging? How so?
  - b. How was the area chosen as an area worth fighting for?
    - i. Why this region?
    - ii. What was known about it?
    - iii. How was it defined?
    - iv. How was it named?
  - c. What were the principle issues behind the campaigns?
    - i. Why was it worth fighting for?
    - ii. What threats was it facing?
  - d. What were the first steps taken to defend the area?
    - i. What were some of the first actions?
    - ii. Were you involved in the blockades on King Island (1995 and/or 1997) or on Roderick Island (1997)? Can you tell me a little about these actions? How did they come about? What was their impact?

2. The campaigns were not limited to blockades at local sites, but eventually were extended to the international marketplace. Can you tell me about this evolution?
  - a. Where did the idea to target retailers of BC forest products come from?
  - b. How were retailers of BC forest products identified?
  - c. What campaigns/actions were launched at these sites? What was their impact?
3. A dominant feature of many of these campaigns was the 'spirit bear'.
  - a. How did this animal become important to the campaign?
  - b. Where did the name 'spirit bear' come from?
  - c. What was the role of the 'spirit bear' in the campaign?
4. The area covered by the Great Bear Rainforest is home to many First Nations and a recognition of this fact seems to have been present in the campaigns. How would you describe relationships between environmentalists and First Nations in the campaigns?
  - a. Did meetings take place between environmental groups and particular First Nations?
    - i. Which Nations?
    - ii. What was the content of the meetings?
    - iii. What kinds of agreements were made, if any?
  - b. Were there any First Nations that were opposed to the environmental campaign?
  - c. How have relationships between environmentalists and First Nations evolved and changed over the course of the campaigns, the agreement and its implementation?
5. Would you say that there was a time when the international markets campaign to protect the Great Bear Rainforest ended? When was this?
  - a. What brought about the end of this campaign?
6. Would you say that the goals of the environmental community has shifted or changed over the course of the campaigns, the agreement and its implementation? How so?

## Negotiations

1. In 1998, Greenpeace and Sierra negotiated with forestry companies, resulting in a temporary moratorium in exchange for environmentalists' participation in the LRMP. Were you part of these negotiations?
  - a. First of all, why did environmentalists originally choose not to participate in the LRMP?
  - b. What was the content of these negotiations that got environmentalists to participate in the LRMP?
    - i. Besides the temporary moratoria, was there anything else that got environmentalists to participate in the LRMP? (Especially EBM)
  - c. Where did these negotiations take place?
  - d. What was the mood at these negotiations?

2. Even while environmentalists sat at the LRMP table, they continued negotiations with forestry companies outside of the table. Is this right?
  - a. Who was involved? Can you tell me anything about new groups that were formed during this process (CFCI, RSP, JSP)?
  - b. What was the content of those negotiations?
  - c. Where did they take place? What was the mood?
  - d. What was the relationship between work being done at the LRMP table and negotiations between environmentalists and forestry companies outside of the LRMP?

### **LRMP History**

1. BC didn't always have a LRMP process. When was the LRMP first introduced?
  - a. What were the circumstances surrounding its introduction?
  - b. Which ministries were involved in developing the LRMP?
2. I have heard that the original purposes of the LRMP were to 1) respond to the Brundtland Commission's recommendation that countries protect 12% of their land base, 2) reduce conflict and 3) involve multiple stakeholders in decision-making. Is this accurate?
  - a. Why do you think these were seen as important goals for the government?
  - b. Obviously, the 12% goal was met, even if it was somewhat contentious. What about the other goals?
  - c. Have these remained the central goals, or are there new purposes for the LRMP?
3. Has the LRMP changed over time? How so?
4. Do you think that the LRMP is effective? Why/why not?

### **LRMP Process**

1. You represented group X at the LRMP table. How did you come to represent this group and how did you come to participate in the LRMP?
  - a. Were you the main representative throughout, or were there other people who took on the role?
  - b. Can you tell me a little bit about who or what you represented? Who were your constituents?
2. What were the major issues and concerns of your group?
  - a. How did you go about forwarding these issues and concerns? That is, how did you go about pressing your case? For instance, did you present data? Did you show maps? Did you tell stories and anecdotes? Can you give me an example?

- b. What kind of support did you receive at the LRMP, such as technical, research or financial support? What about the products coming out of the CIT, were they important to the negotiations and final decisions?
3. Besides negotiations in the LRMP, were you involved in any associated discussions or work outside of the LRMP? Can you give me an example?
  - a. What was the relation between work done outside of the LRMP and work done in it?
4. Did you find yourself conflicting with other people at the table, in terms of how your issues and concerns interacted with theirs? How were these conflicts resolved? Can you give me an example?
  - a. What was the role of mediators and facilitators at the LRMP?
5. The interim framework agreement was announced on April 4, 2001
  - a. Were you aware that there was going to be an announcement?
  - b. What was the purpose of this interim agreement?
  - c. How did this interim agreement affect subsequent work in the LRMP?
6. The LRMP delivered consensus recommendations were delivered in X. How did you get there?
  - a. I'm interested in how the positions and interests of the different groups became reconciled with one another
  - b. For example, did your position change over the course of the LRMP in order to be reconciled with other positions? Can you give me an example?
  - c. Did any of your issues or concerns not make it into the final consensus? Can you give me an example?
7. The Coast Land Use Agreement was announced on January 7, 2006
  - a. Do you think it is a good agreement? Do you think that it has any failings?
  - b. What in this agreement stands out for you as the most important aspects?

### **First Nations Group Formation**

1. What is the history of (TP, NC, TSC)? How did it form?
2. Who was this group designed to represent?
  - a. Have the constituents remained the same or have they changed over time?
  - b. Are there some First Nations who could belong to the organization but do not? Who are they and why do you think that they don't belong to the group?
3. What was the main purpose of the organization when it formed?
  - a. Has this remained the central purpose, or have new objectives emerged?
4. What kinds of things did the group do to try to achieve those objectives, in the early days?
  - a. What were some of the groups major accomplishments? How was it able to achieve those things?
  - b. What role did the group play in the Coast Land Use Agreement?
5. What has been the relationship between the organization and other groups, such as ENGOs, forestry companies, tourism operators and the BC government?

- a. Are these relationships different from the kinds of relationships First Nations have had with these groups in the past? How so?
  - i. Have these relationships changed over time? How so?
- 6. What is the role of the group now?
  - a. What kinds of things are you working on now?

### **Government-to-Government Processes**

1. In 2001, the provincial government agreed to engage in “Government-to-Government” negotiations with First Nations about land and resource use
  - a. Have you heard of this process?
  - b. Can you tell me what it means?
    - i. How is “Government” defined in the case of First Nations? Is it the elected band council? A group representing a number of First Nations? Hereditary chiefs?
  - c. Do you know where the idea of a G2G process first came from?
2. Have you been a part of any G2G negotiations?
  - a. What was the content of these negotiations (in general terms if you can’t get into specifics)? What were the major issues that were discussed?
  - b. How do G2G negotiations work? Can you fill me in on the process?
3. It seems that the G2G process has resulted in a new co-governance model for the region, that is, governance shared by the Province and First Nations, and that this model is situated in the new Land and Resource Forums (or LRFs). Have you heard of the LRFs?
  - a. What do the LRFs do?
  - b. What challenges are faced by the LRFs?

### **EBM**

1. In many of the news releases and other materials that I have read, ecosystem-based management, or EBM, is presented as a central part of the land use decision. Would you agree? Why/why not?
  - a. Do you know how EBM came to take on such importance in this case?
  - b. Do you know where did the idea came from?
  - c. Do you know who was involved in promoting the idea in this case?
  - d. Do you know how was the idea developed? (If respondent was part of development, ask for details on the process)
  - e. Do you know whether there some who disagree with the idea? If so, do you know why?
2. The definition of EBM given by the Coast Information Team is:
 

...an adaptive approach to managing human activities that seeks to ensure the coexistence of healthy, fully functioning ecosystems and human communities.

  - a. What do you think of this definition?

- b. What do you think is meant by “healthy ecosystems?”
  - c. What do you think is meant by “healthy human communities,” or what is elsewhere referred to as “human well-being?”
  - d. Do you think that EBM can support healthy ecosystems and human wellbeing at the same time? How so?
3. Do you think EBM is going to change things on the coast? How so?
    - a. How will it impact economic development?
    - b. How will it impact conservation?
    - c. How will it impact local communities?
    - d. How will it impact First Nations?
  4. What steps are being taken to implement EBM?
    - a. What kind of voluntary measures have forestry companies put in place?
      - i. Why were these measures ‘voluntary’?
    - b. Can you tell me about the legal objectives that are being put in place?
      - i. These objectives cover issues of ecosystem integrity. Do they cover anything else?
    - c. Have any measures been put in place to ensure human well-being? If so, what are they?
    - d. What is the role of First Nations in implementing and monitoring EBM?
    - e. How will EBM objectives be measured? That is, how will we know whether EBM is being achieved?
      - i. For example, how do we know when human well-being is achieved?
    - f. What do you think are some of the most significant challenges to implementing EBM?

### **Conservation Economy**

1. Some people involved in the land use agreement talked about the need to create a “conservation economy.” Have you heard of this idea?
  - a. Where do you think this idea come from?
  - b. What do you think is meant by it?
  - c. Do you agree with the general idea of a conservation economy? What about it do you agree with or not agree with?
2. What do you think is ‘new’ or different about the conservation economy, in comparison with what it replaces?
  - a. One idea is that the conservation economy will involve economic development that is based on natural resources, but that it will leave those resources pretty much they way they were found, instead of extracting them and taking them out of the region.
    - i. How is this possible?
    - ii. How do we know what needs to be left in place? How do we know whether such development contributes to human wellbeing?
    - iii. What are some examples of types of activities that a conservation economy would include?

- b. How will the conservation economy impact the kind of work that has traditionally taken place in the region? Who will be the most impacted?
          - i. How will the conservation economy ensure that local people benefit?
          - ii. How will the conservation economy ensure that First Nations benefit?
- 3. What work has been done to support the development of a conservation economy so far?
  - a. There is a \$120 million fund called the Coast Opportunities Fund that has been established. Do you know much about this fund?
    - i. How were the funds for the Coast Opportunities Fund raised?
    - ii. Can people access these funds yet? What do people have to do to access these funds? Is there equal access to funds for all people?
  - b. What about work to assess markets for newer products, such as nontimber forest products, eco-certified forest products, value added fisheries products? Has anything along these lines taken place?
  - c. Have relationships with people or organizations that would be helpful to develop the conservation economy been formed?
    - i. Such as with the Forest Stewardship Council?
- 4. What do you think remains to be done to develop the conservation economy?



## **A.5 Example of Tailored Interview Guide – Turning Points (TP)**

### Intro

- I am focussing on the CLUA as a case study for my dissertation research. I'm interested in the very important transformations of conservation, development and governance in coastal BC that are connected with the agreement
- At this stage of my research, I'm basically trying to get a sense of how the project has been built and the processes under way right now to implement it.
- I'm talking to people who are directly involved in the project in one capacity or another. So, I'm talking to FNs, ENGOs, Forestry Industry and local and Provincial Government
- I would like to talk with you because of your role with TP.

### History and Purpose of TP

- What is the history of TP? How did it form? What led to its development?
  - How did the meetings at the DSF come about? What role did the DSF play in those meetings? What role did the DSF play in the organization as it developed?
- Who was this group originally designed to represent?
  - Have the constituents remained the same or have they changed over time?
  - Are there some First Nations who could belong to the organization but do not? Who are they and why do you think that they don't belong to the group?
- What was the main purpose of the organization when it formed?
  - Has this remained the central purpose, or have new objectives emerged?
- What kinds of things did the group do to try to achieve those objectives, in the early days?
  - What were some of the groups major accomplishments? How was it able to achieve those things?
  - What role did the group play in the Coast Land Use Agreement?
- What has been the relationship between the organization and other groups, such as ENGOs, forestry companies, tourism operators and the BC government?
  - Are these relationships different from the kinds of relationships First Nations have had with these groups in the past? How so?
    - Have these relationships changed over time? How so?
- What is the role of the group now?
  - What kinds of things are you working on now?
- How did you come to be associated with the group?
  - Own history
  - (e.g., was DM of Aboriginal Affairs)

## Role of TP in development of CLUA

- What was the role of TP in the development of the CLUA?
  - I know that TP FNs participated as observers, pointing out their interests and contributing information to the process, but abstained from decision-making in preference for G2G negotiations
  - But, I'm sure that TP had a role in the crafting of the agreement. What was that role?
- For example, can you tell me about the "Meetings at the Met?"
- Can you tell me about TP's role in the CIII?

## G2G

- In 2001, the provincial government agreed to engage in "Government-to-Government" negotiations with First Nations about land and resource use
  - How did this agreement come about? What were the processes that led to the recognition of FNs as governments rather than stakeholders?
  - How did these negotiations work?
  - How is "Government" defined in the case of First Nations? Is it the elected band council? A group representing a number of First Nations? Hereditary chiefs?
- Have you been a part of any G2G negotiations?
  - What was the content of these negotiations (in general terms if you can't get into specifics)? What were the major issues that were discussed?
  - How do G2G negotiations work? Can you fill me in on the process?
- The G2G process has resulted in a new co-governance model for the region, situated in the new Land and Resource Forums (or LRFs).
  - What do the LRFs do?
  - How do the LRFs engage with other groups?

## EBM

- EBM is a central part of the agreement. What does EBM mean to TP FNs?
- What does HWB mean?
- What does EI mean?
- What is the relationship between EI and HWB?
- When will we know that EBM has been properly implemented?

## Conservation Economy

- Some people involved in the land use agreement talked about the need to create a “conservation economy.” Have you heard of this idea?
  - What do you think is meant by it?
  - Do you agree with the general idea of a conservation economy? What about it do you agree with or not agree with?
- What do you think is ‘new’ or different about the conservation economy, in comparison with what it replaces?
  - One idea is that the conservation economy will involve economic development that is based on natural resources, but that it will leave those resources pretty much the way they were found, instead of extracting them and taking them out of the region.
    - How is this possible?
    - What are some examples of types of activities that a conservation economy would include?
- How will the conservation economy impact the kind of work that has traditionally taken place in the region? Who will be the most impacted?
  - How will the conservation economy ensure that local people benefit?
  - How will the conservation economy ensure that First Nations benefit?

## A.6 UBC Research Ethics Board Certificate of Approval

The University of British Columbia  
Office of Research Services  
**Behavioural Research Ethics Board**  
Suite 102, 6190 Agronomy Road,  
Vancouver, B.C. V6T 1Z3

### CERTIFICATE OF APPROVAL - MINIMAL RISK

<b>PRINCIPAL INVESTIGATOR:</b> D. Ralph Matthews	<b>INSTITUTION / DEPARTMENT:</b> UBC/Arts/Sociology	<b>UBC BREB NUMBER:</b> H07-01420
<b>INSTITUTION(S) WHERE RESEARCH WILL BE CARRIED OUT:</b>		
<b>Institution</b>	<b>Site</b>	
N/A	N/A	
<b>Other locations where the research will be conducted:</b> Interviews will be conducted as can be arranged in the field. Probable locations include interviewees' offices, interviewees' homes, or public spaces such as restaurants.		
<b>CO-INVESTIGATOR(S):</b> N/A		
<b>SPONSORING AGENCIES:</b> Social Sciences and Humanities Research Council of Canada (SSHRC)		
<b>PROJECT TITLE:</b> Assembling the Great Bear Rainforest: Transformations of Nature, Economy, Knowledge and Governance on Canada's West Coast		

**CERTIFICATE EXPIRY DATE: August 10, 2008**

<b>DOCUMENTS INCLUDED IN THIS APPROVAL:</b>	<b>DATE APPROVED:</b> August 10, 2007	
<b>Document Name</b>	<b>Version</b>	<b>Date</b>
<b>Protocol:</b> Assembling the Great Bear Rainforest	N/A	May 18, 2007
<b>Consent Forms:</b> GBR Consent Form	2	August 3, 2007
<b>Questionnaire, Questionnaire Cover Letter, Tests:</b> GBR Interview Topics	N/A	July 13, 2007
<b>Letter of Initial Contact:</b> GBR Letter of Introduction	2	August 3, 2007
The application for ethical review and the document(s) listed above have been reviewed and the procedures were found to be acceptable on ethical grounds for research involving human subjects.		
<i>Approval is issued on behalf of the Behavioural Research Ethics Board</i>		

*and signed electronically by one of the following:*

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Dr. Peter Suedfeld, Chair  
Dr. Jim Rupert, Associate Chair  
Dr. Arminee Kazanjian, Associate Chair  
Dr. M. Judith Lynam, Associate Chair  
Dr. Laurie Ford, Associate Chair