THE CHALLENGE OF DEVELOPING SUSTAINABILITY IN TIERRA DEL FUEGO: ENVIRONMENTALIST CONTESTATION OF THE RÍO CÓNDOR FOREST PROJECT IN CHILE

by

Wayne Crosby
BA Sociology, Simon Fraser University, 2002
BA Geography, Simon Fraser University, 2002

THESIS SUBMITTED IN PARTIAL FULFILLMENT OF
THE REQUIREMENTS FOR THE DEGREE OF

MASTER OF ARTS

In the
Department of
Sociology and Anthropology

SIMON FRASER UNIVERSITY

Spring 2006

Approval

Name: Wayne Crosby

Degree: Master of Arts

Title of Thesis: THE CHALLENGE OF DEVELOPING SUSTAINABILITY IN TIERRA DEL FUEGO: ENVIRONMENTALIST CONTESTATION OF THE RÍO CÓNDOR FOREST PROJECT IN CHILE

Examining Committee:

Chair: **Dara Culhane**
Associate Professor of Anthropology
Simon Fraser University

Dr. Marilyn Gates
Senior Supervisor
Associate Professor of Anthropology
Simon Fraser University

Dr. Karl Froschauer
Supervisor
Assistant Professor of Sociology
Simon Fraser University

Dr. Ian Angus
External Examiner
Professor of Humanities
Simon Fraser University

Date Defended/Approved: Mar. 14/06

SIMON FRASER UNIVERSITY library

STATEMENT OF ETHICS APPROVAL

The author, whose name appears on the title page of this work, has obtained, for the research described in this work, either:

(a) Human research ethics approval from the Simon Fraser University Office of Research Ethics,

or

(b) Advance approval of the animal care protocol from the University Animal Care Committee of Simon Fraser University;

or has conducted the research

(c) as a co-investigator, in a research project approved in advance,

or

(d) as a member of a course approved in advance for minimal risk human research, by the Office of Research Ethics.

A copy of the approval letter has been filed at the Theses Office of the University Library at the time of submission of this thesis or project.

The original application for approval and letter of approval are filed with the relevant offices. Inquiries may be directed to those authorities.

Bennett Library
Simon Fraser University
Burnaby, BC, Canada

Abstract

Globally and nationally, corporations, states, and social movements are key social actors in initiatives to overcome deforestation through sustainable development projects. In Chile in the early 1990s, the Trillium Corporation of Bellingham, WA, US proposed but, after what amounted to a 13-year dispute, failed to develop the innovative Río Cóndor sustainable forestry project to extract timber and foster socio-economic development in Tierra del Fuego. Based on my analysis of findings from participant observation, reports, secondary data, and 40 interviews that included representatives from Trillium, the Chilean government, environmental organizations, media and forest industry, it became evident that these key actors adapted and resisted socially constructed ideas of sustainable development and of environmentalism. In addition, the importance in recognizing ecological limits, regardless of one's take on environmentalism for socio-economic development become evident along with revealing important lessons in the process of developing sustainability.

Keywords: Sustainable Development, Environmental Sociology, Environmentalism, Sustainable Forestry, Río Cóndor Sustainable Forest Project, Chile.

Dedication

Quisiera dedicar esta tesis a toda la gente que tuve la oportunidad de conocer durante mi experiencia de trabajo de campo en Chile/I wish to dedicate this thesis to the many people I encountered throughout my fieldwork experience in Chile. I also wish to dedicate this thesis to my Mom, Carole Fraser, and the memory of Nana Fraser.

Acknowledgements

Many people in Chile and Canada contributed to the process of producing this thesis. In Chile, I am very grateful to the many people I encountered during my fieldwork experience for sharing their knowledge and generous hospitality. I am particularly grateful to those that participated in my research and provided me with information to write this thesis. Overall, I was inspired throughout my research experience by the number of people actively engaged in working towards social and ecological change.

I am also grateful to those that provided their translating expertise during the interviews: Will Osmond in Santiago and Rodrigo Sirón in Punta Arenas, and when Will or Rodrigo were unavailable, Guillette Koning, Chauncey Brooks, or Andrea Andrade Pacheco also assisted. Also, included in translating the excerpts selected for this thesis were Katherine Allen and Alejandro Astudillo along with Eduardo Mandiola who helped with the transcribing. I am grateful to them all for their timely and professional services.

In Canada, I wish to thank my Mom, Carole Fraser, for her unconditional support and encouragement throughout this entire process. I also wish to thank my family and many friends who supported me in pursuing my passions and interests in life. There are too many names to list here, but our conversations and time spent together have contributed greatly throughout this process and life in general.

During my time at SFU, I was very fortunate to work with Dr. Marilyn Gates and Dr. Karl Froschauer as my committee for this thesis. I am deeply grateful to them both for not only offering me excellent feedback and positive support throughout this thesis, but equally important, the opportunity to develop my own ideas and write the thesis according to my perspective of the forest dispute. While changes were made throughout the process, the ideas and overall shape of the thesis is how I wanted it to be presented. I would like to express my gratitude in particular to Marilyn Gates for believing in my abilities and encouraging me to challenge myself throughout this experience.

Lastly, I wish to thank Luis Contreras and Trillium Corporation for providing me, or granting access to, any and all documents I requested including the Stewardship Principles, scientific studies, photos and maps. I am grateful to their willingness and interest to participate in my research.

Table of Contents

List of Figures

List of Tables

List of Abbreviations and Acronyms

CEPAL: Comisión Económica para América Latina/Economic Commission for Latin America and the Caribbean (ECLAC)
CIPMA: Centro de Investigación y Planeamiento del Medio Ambiente/Centre for Research and Planning on the Environment
CODEFF: Comité Nacional pro Defensa de la Fauna y Flora/National Committee for the Defence of Flora and Fauna
CONAF: Corporación Nacional Forestal/Chile's National Forest Corporation
CONADE: Comisión Nacional de Ecología/National Commission of Ecology
CONADI: Corporación Nacional de Desarrollo Indígena/National Corporation for Indigenous Development
CONAMA: Comisión Nacional del Medio Ambiente/National Environmental Commission
COREMA: Comisión Regional del Medio Ambiente/Regional Environmental Commission
CORMA: Corporación Chilena de la Madera/Chilean Wood Corporation
EIA: Evaluación de Impacto Ambiental/Environmental Impact Study
ENGO: Environmental non-government organization
FIDEXII: Fundacíon para el Desarrollo de la XII Region Magallanes/Foundation for the development of Region 12 Magallanes
FIMA: Fiscalía del Medio Ambient/Environmental Public Prosecutor's Office
FRAP: Frente de Acción Popular/Popular Action Front
IDDEA: Iniciativa de Defensa Ecológica Austral/ Initiative for Ecological Defence of the South
IEP: Instituto de Ecología Política /Political Ecology Institute
INE: Instituto Nacional de Estadísticas/National Statistics Institution
INFOR: Instituto de Investigación Forestal de Chile/Chile's Forest Institute
ISC: Comisión Científica Independiente/Independent Scientific Commission
Ley Marco: Ley de Bases del Medio Ambiente/Environmental Framework Law of Chile (19,300)
MICSA: Magallánica Industrial y Comercial de Bosques S.A./ Magallanica Industrial and Commercial Forests S.A.
NAFTA: Tratado de libre comercio de américa del norte/North American Free Trade Agreement
PDC: Parti Democracia Cristiana/Christian Democrat Party
PNUMA: Programa de las Naciones Unidas para el Medio Ambiente/United Nations Environment Program (UNEP)
PPD: Partido por la Democracia/Party for Democracy
PS: Parti Socialista/Socialist Party
RENACE: Red Nacional de Acción Ecológica/National Network for Ecological Action
SEGPRES: Ministro Secretario General de la Presidencia/Ministry Secretary General of the Presidency
SEIA: Sistema de Evaluación de Impacto Ambiental/System of Environmental Impact Evaluation
SIGMA: Sistemas de Gestión Medioambiental/System of Environmental Management
SNASPE: Sistema Nacional de Áreas Silvestres Protegidas del Estado/National System of State-Protected Forested Areas
UP: Unidad Popular/Popular Unity

Chapter 1
Introduction

A Personal Awakening

While my interest in the environment in general evolved from a family involvement in the forestry industry of British Columbia and my various interactions such as outdoor recreation in the biophysical world, it was not until the summer of 1993 and the "war in the woods" over logging in Clayoquot Sound, British Columbia when my ecological conscience awoke. My relationship with the natural world up until then was framed within an instrumental and aesthetic perspective – timber provides a "use" for societal material needs and the forest's beauty left me in awe. However, the protests in Clayoquot Sound made me begin to question my taken-for-granted ideas of forests and our relationship to them.

In particular, I learned that 'timber' is in fact trees that belong to an interconnected ecosystem, which also sustains life for many other species. I also recall the realization that an old-growth forest does not signify a dead, unproductive, or decrepit forest, which can be "improved" with human intervention. In addition, an important lesson I learned was about unintended socio-cultural factors that played out in the forest dispute. For example, the BC environmental movement excluded the socio-economic realities of community members whose livelihoods were dependent on logging and the socio-economic needs and rights of Aboriginal people from the campaign, which focused on a particular form of environmentalism in preserving the forests[1]. Lastly, I learned that although the forest engineers, industry and government claimed clearcut logging, the standardized form of logging in British Columbia, mimicked nature, it did not replicate the natural processes of forest degradation and instead illuminated our values and priorities in society. My thoughts in the early stages of my research were shaped by these lessons and I arrived in Chile on September 19, 2003 with the premonition that the Río Cóndor Project shared these same issues.

It was soon after the protests of Clayoquot Sound when I found myself standing in the zócalo (town square) conversing with Zapatistas in San Cristóbal de La Casa, Mexico, on the morning of their January 1, 1994 insurrection. I think back now and can better articulate the thoughts in my head, particularly as a white, middle-class, male from North Vancouver, British Columbia, Canada, baffled by the connection between the

[1] See Shaw (2004) for a brief overview of the Clayoquot Sound dispute and the recent dispute over the Great Bear Rainforest in British Columbia, Canada.

implementation of the North American Free Trade Agreement (NAFTA) on that day and the disruption of my New Year's festivities. It was here when I distinctively remember my political and social conscience beginning to awaken. I often reflect on these moments in my history and realize how they influenced the genesis of my insistence on combining social and ecological perspectives to discover meaningful changes to our relationship with the biophysical world.

For this master's thesis research, I wanted to work outside the 'box' or my comfort zone, intellectually and physically. That is, I wanted to move outside of the BC forest context, where I had spent the previous 14 years engaged intellectually, recreationally, and as a critic. Something I realized while participating in advocacy activities in BC is that, on the surface, some issues are perceived or presented as being very simple, for example, jobs versus the environment, when in reality, they are much more complicated. So, while BC occupies a significant portion of my heart, I knew that travelling elsewhere would allow me to broaden and challenge my perceptions within an unfamiliar cultural and social context, while also allowing me to reflect on my home from a more enriched perspective.

After discussing my options with my supervisory committee, I decided to purchase a tape recorder and a round-trip ticket for Santiago, Chile, to conduct fieldwork from September 2003 through March 2004 to examine an environmental contestation of a proposed innovative, sustainable forest project in Tierra del Fuego. I became aware of this forest dispute before commencing my graduate studies in Environmental Sociology and arrived in Chile with ideas informed by my experiences with Clayoquot Sound and other forest-related disputes in BC. While the Clayoquot forest dispute informed my questions and interests, I also remained open minded and curious to learn the Río Cóndor story in the Chilean context.

I recall awakening early on the morning of Sept 19, 2003 to a pastry and cup of coffee presented to me. The cabin of the plane was bright with sunshine and as I looked out my window, I could see the many plots of agricultural properties organized across the landscape and the spectacular snow-capped Andean Mountain Range close enough to touch. I could see how the Spanish colonists were limited in their options when carving out political boundaries on the landscape, since the Andes bound the easterly expansion of the narrow strip of land we know as Chile (17°30'S and 56°30'S – see **Figure 1** for map). 5

Figure 1 **Map of Chile illustrating the 12 regions and capital cities for each region.**

(Source: http://commons.wikimedia.org/wiki/Image:Mapa_administrativo_de_Chile.png -- Retrieved January 29, 2006)

With an average width of 160km and stretching for 4300km from the borders of Peru and Bolivia to Cabo de Hornos in the south, this long and narrow country is bound by geographic constraints with the Pacific Ocean

along the coastline, and the Andes on its eastern border. However, while it is limited in spatial territory, 775,000 km², it is well endowed with ecological and culture diversity. From the deserts of the North to the temperate forests of the South and a diversity of indigenous people and European immigrants (e.g., German, Italian, Croatian), Chile offered me a unique experience I will never forget.

Significance of Research

With the surge of global interest in sustainable development in the latter decades of the twentieth century, ongoing deforestation has become a primary concern to states, businesses, and social movements. According to the Independent Scientific Committee (ISC), a group of leading Chilean scientists commissioned by the architects of the Río Cóndor Project, Trillium Corporation of Bellingham, Washington State, United States of America (US hereafter), the total world area of temperate forests (including boreal and subantarctic biomes) is approximately 32,000,000 km² or roughly 0.06% of the world's total land surface. Over 95% of all temperate forests are found in the Northern hemisphere, which means that less than 5%, or approximately 1,600,000 km², is found in the South. What is also interesting to understand is that forested lands increase as latitude increases in the Northern hemisphere, while the reverse is true in the Southern hemisphere, but forested lands of the South are richer in plant species than those of the North (Arroyo et al., 1996). The ISC illustrates this limited amount of forested land in the Southern Hemisphere by contrasting the quantity of the boreal forest biome in the North with the ecologically equivalent circumantarctic forest biome found in the South. The boreal forest biome is estimated at 13 million km² whereas the circumantarctic forest biome is estimated at 0.03 million km² (Arroyo et al., 1996). Overall, temperate forests in the Southern Hemisphere are very small in quantity in isolated biogeographic locations and have ecologically important endemic flora and fauna.

A range of factors (anthropocentric and biocentric) contributes to degrading or destroying forest ecosystems on the planet. Industrial development plays a key role in destroying temperate forest biomes in Chile[2]. Consequently, a range of ideas and solutions for reducing degradation exist such as the idea of sustainable development, which has combined developmentism and environmentalism and has been embraced by the international community since the late 1980s. States, businesses, and social movements have become key actors in shaping pathways toward achieving "development that meets the needs of the present without compromising the ability of future generations to meet their needs" (WCED, 1987, p. 43). In Chile during the early 1990s, an attempt at operationalizing the idea of sustainable development arrived in the form of Trillium Corporation's innovative sustainable forestry project called the Río Cóndor.

---

[2] Industrial development is often linked to contributing to widespread degradation of all forest types, but for the purpose of this thesis, only temperate forests (in which the ISC report includes Boreal forest types) are discussed.

The Río Cóndor Project was to be a large-scale (272,729 ha) sustainable forest project with investments of up to $200 million proposed for a remote forestland located in the far south of Chile in Tierra del Fuego. It was developed by Trillium Corporation of Bellingham, Washington, US, in joint venture with the Beacon Group of New York, US, who together created Bayside Ltd. (60% Trillium and 40% Beacon Group) in the Columbia Seafirst Tower. In Chile, Bayside Ltd created and registered Forestal Trillium Ltda. in Santiago. Bayside was operated by Robert Mann (President and CEO) who was appointed by David Syre (Chairman and CEO of Trillium Corporation) after Mann was hired to extinguish public protest of Plum Creek Timber's clear-cuts along Interstate 90, Washington, US (Dietrich, 1997). Forestal Trillium Ltda. later became Forestal Savia (from this point on I will refer to Trillium when referring to Forestal Trillium Ltda., Forestal Savia, or Trillium Corporation) as the project faced opposition and delay. The Río Cóndor Project exemplified an approach to alleviate the destructive impacts often associated with industrial forestry by offering sustainable forest management while producing value-added wood products for furniture markets in the North and conserving biodiversity and ecosystem processes in the South. After decades of boom/bust cycles of primary natural resource extraction in Tierra del Fuego, communities were desperate for the possibility of a long-term project that promised broader socio-economic development. However, opposition emerged mainly from environmental groups and forest scientists, but also within the government and the forest industry in Chile after the project's initial proposal in 1995 and subsequent revised proposal in 1997[3]. While some informants described the project to me as being "seductive," it became a highly disputed forest project proposal that ultimately ended in the project's demise in 2004.

At the time of the project's official proposal in 1995, Chile was undergoing a 'transition to democracy', which meant government institutions, social and environmental groups, media, universities were all rediscovering their 'voice' in the public sphere. General Pinochet's 17-year brutal dictatorship (1973 -1990) prohibited political dissent and used the torture and murder of thousands of people to enforce undemocratically imposed norms during his control. Associated with the political climate of Chile in the 1990s, was a successful economic model informed by neo-liberal ideas, which further entrenched Chile's economy and place in the global economy as an exporter of low-valued resource commodities to Northern markets. Chile also continued to position itself in the global economy through the signing of trade agreements such as the Free Trade Agreement Chile-Canada in December 1996[4]. The government also recognized the need to begin incorporating environmental factors into their development strategy by signing a number of environmentally oriented international conventions/agreements such as the 1992 Earth Summit, which had embraced the idea of sustainable development. In addition, the government enacted an

[3] See Forestal Trillium Ltda. (1995) for the first proposal in 1995 and Forestal Trillium Ltda. (1997a) for the second proposal in 1997.
[4] Ongoing trade agreements with individual countries (e.g., US, China, European Union and Korea) and the soon to arrive Free Trade Agreement of the Americas (FTAA) will further entrench Chile's position in the global economy.

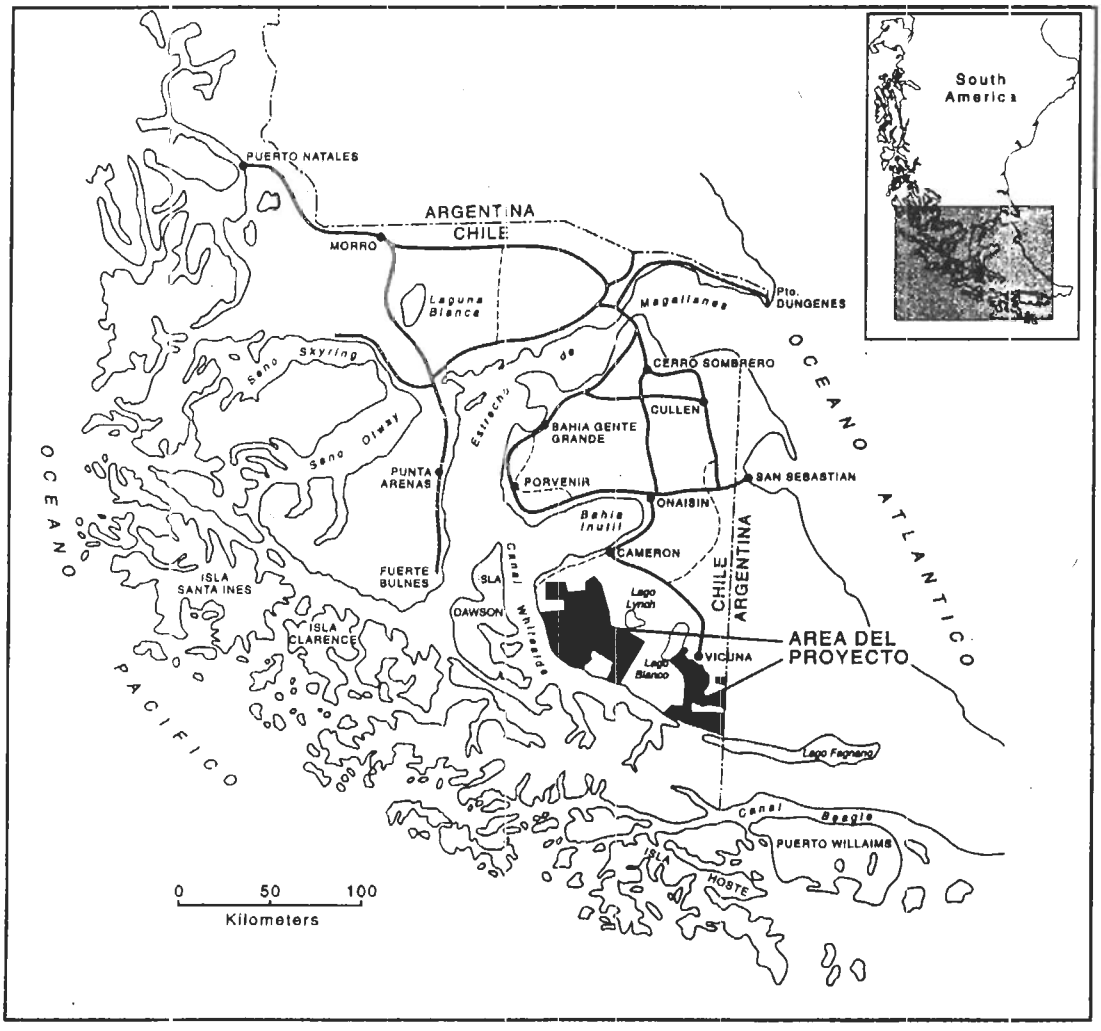
environmental framework law (Law 19,300) in 1994, which required large-scale projects to undergo an environmental impact study before approval was granted to commence operations. The Río Cóndor Project became the first large-scale forest project to undergo this new process, which consequently tested the new law and government agencies associated with the process.

Despite Trillium's attempt at operationalizing sustainable development, it faced strong and politically effective opposition from a range of actors within civil society. Arguments raised against the project included ecological concerns such as unrealistic harvest levels, a questionable logging method, lack of sufficient data or ecological knowledge of the property, concerns over regeneration of the forest due to the browsing habits of the *guanaco*[5], destructive impacts of non-native beaver[6], fragility of the ecosystem, strong winds, and thin soil conditions. Political concerns included land sold below market value. There were also concerns raised about the technical qualifications of the Comisión Regional del Medio Ambiente's (COREMA, Regional Environmental Commission) scientific group, concerns over ecological and economic sustainability because the projected harvest levels did not match the actual amount of viable timber available in the forest. The concern over the extent of value-added processing of the primary tree for the Río Cóndor Project, *lenga* (Nothafagus Pumilio), arose because past experience of harvesting in Chile involving lenga fibre processed into wood chips for Japanese pulp markets. In particular, the issue of trust in Trillium's actual intentions with the project became important after promises made by Trillium to, for example, build a mill in Porvenir, Tierra del Fuego, that did not materialize (see **Figure 2** for map of Southern Chile).

[5] Similar to llamas, alpacas and vicuñas, guanaco are wild mammals of the camel family and indigenous to the arid plains of the Andean Mountains in South America.

[6] The beaver (originating from Canada) was introduced in the 1940s by the Argentina government in hopes of creating a viable fur industry. However, while the beaver populations flourished, the industry did not, and without a natural predator and abundance of food on the island, the beaver population has since grown to estimates of over 250,000. The ecological impact is significant as they flood the landscape and destroy ecosystems. They have been seen spreading throughout the island archipelago, which has raised fears of them travelling across the Strait of Magellan and populating the mainland.

Figure 2 **Map of Tierra del Fuego with location of Río Cóndor Project highlighted**



Source: *Conserving Forest Biodiversity* by David B. Lindenmayer and Jerry F. Franklin. Copyright © 2002 by the authors. Reproduced by permission of Island Press, Washington, D.C.

The forest dispute lasted nearly 13 years from the time the idea of exploiting lenga in the Tierra del Fuego was launched by Cetec-Sel Ltd. in 1991 (a joint venture between Cetec Engineering Ltd., of Vancouver, British Columbia, Canada and Sentanr Enterprises Ltd. of the Grand Cayman Islands) until its end in 2004. Unlike the Río Cóndor Project, which intended to produce finished lumber for furniture markets in North America and Europe, Cetec-Sel was also interested in chipping for the pulp market in Japan (Nash, 1991). Trillium Corporation acquired land in 1993 for a reported $42 US million (Dietrich, 1997) and began developing the innovative Río Cóndor Project, which challenged the norms of large-scale industrial forestry and generated much discussion among various interest groups of Chilean and North American societies.

Contributing to the sub-discipline of Environmental Sociology and the growing field of ecologically based social movement literature in Latin America, this thesis offers a unique perspective of the Río Cóndor

dispute. Theoretically, it explores the process of contesting socially constructed ideas of environmentalism and sustainable development as they are transmitted through key actors found within the political ecological context of Chile and the international sphere. The combination of the theoretical orientation in environmentalism, sustainable development, political ecology and social movements and data gathered during fieldwork provides us with insight into what the dispute surrounding the Río Cóndor sustainable forest project reveals about the challenge of developing sustainable forestry, and which actors can develop a sustainable forestry in Chile. In particular, this thesis answers, given the history of Chile's colonial development and its state's recent political and economic history, how did key social actors in the domestic and international spheres contribute to halting the sustainable development strategy of the Trillium Corporation in Tierra del Fuego? In response, this thesis argues that key social actors in the Chilean domestic sphere and international sphere adapted and resisted socially constructed ideas of sustainable development and environmentalism, which led to the project's ultimate demise. In arguing this position, I will explore what the process of contending ideas of environmentalism and sustainable development reveals about the different approaches to developing sustainable forestry. In addition, we will see how the different ideas of sustainable development and environmentalism led key actors to take different initiatives to bring about, or resist, the implementation of the Río Cóndor Project. As such, despite the apparent outcome of an aborted attempt at sustainable forestry, this is not about another failure to achieve the elusive goal of sustainable development, but instead offers valuable lessons about the process of developing sustainability.

Research Methods and Data Analysis

My research in Chile involved conducting fieldwork from September 2003 through March 2004. I engaged in participant observation, collection of secondary source materials, and 40 in-depth interviews with key actors including environmental organizations, government, media, community members, Trillium and others involved in the forest industry. My time was split between Santiago and Punta Arenas with the exception of two weeks travelling down the coast during the holiday season to Pucon, Puerto Montt, Chiloé, and further south by ship to Puerto Natales, Punta Arenas and Yendegaia. I was fortunate to receive an invitation by the environmental organization Defensores del Bosque, involved in the forest dispute and based in Santiago, to join them on a trip to their conservation project in the southern reaches of Tierra del Fuego called Yendegaia. The trip through the Beagle Channel and time spent in Yendegaia allowed me to see more of Tierra del Fuego and its diverse ecological ecosystems. Throughout my travels, exploring the communities by foot and enjoying the Chilean social scenes offered me a fruitful experience in learning about Chilean culture, practicing my Spanish and meeting some amazing people.

Of the 40 in-depth interviews conducted, one was done via electronic correspondence. The remaining 39 followed a semi-structured format in which I presented a number of questions I intended to explore throughout the interviews (see Appendix VI for sample questions). Each interview began with getting to know the person by asking for a brief history of themselves, which was often a combination of personal and professional background. From this point on, I let the interviewee guide the discussion and interjected when I required clarification or where a question I had already prepared was appropriate. I preferred to let the conversation take us wherever we were going to go, but intervened when I felt it appropriate or necessary to avoid lengthy tangents.

I arrived in Chile with many research questions, but my main question at that time asked how civil society brought a halt to Trillium's logging plans in Tierra del Fuego. I also wanted to explore whether the Río Cóndor Project was actually going to reduce the ecological degradation often associated with industrial forestry activities and offer an example where combining commercial forestry and conserving biodiversity and ecosystems is possible. In addition, what were the historical and current social, political, economic, and ecological circumstances in Chile and Tierra del Fuego? What specific actions (by social actors), events, conflicts, marked critical moments throughout the forest dispute and why? What and where were the places of dialogue, negotiation, and conflict resolutions for the social actors to play out their differences? In the end, why is the project not in operation today and what does this mean for the socio-economic needs of communities in Tierra del Fuego and Chile's path towards the elusive goal of sustainable development?

In addition, I wanted to explore the role of the national and international environmental movement in moving us towards meaningful change on the planet. Opposition to the Río Cóndor Project formed in Chile and abroad used diverse strategies such as public demonstrations, media communication, and a market campaign, but legal actions proved most effective in challenging both the company's objective and the legitimacy of the state's role in environmental protection. The well-organized and communicated national and international environmental movement contributed to stalling the official launching of the project and contributed to the transfer in ownership of the forestland from Trillium to Goldman Sachs[7] from the United States, which in 2004 allocated land management responsibilities to the international conservation organization, World Wildlife Conservation, New York, US. However, the Chilean state, in particular the Comisión Nacional del Medio Ambiente (CONAMA, National Environmental Commission) continues to have

[7] After the first loss in the Supreme Court on March 19, 1997, Trillium also lost their financial partners in New York with a debt of more than $20 million (US) as opposed to the $25-30 million (US) credit they had at the beginning of the project. They turned to Capital Consultants (CCI) for investment to continue with the project when February 2000, the Portland, Oregon based financial group loaned $56 million (with prime plus 5% interest) to Trillium (David Syre, Chairman and CEO Trillium Corporation, Bellingham, WA, July 30, 2004). However, in September 2000, CCI went bankrupt and was taken over by the Federal Government for violations in pension fund management. In 2004, Goldman Sachs, a global Investment banking, securities and investment management firm in the US acquires ownership of forestland in Chile, sawmill in Punta Arenas and additional forest lands in Argentina.

jurisdiction over land use. Consequently, the World Wildlife Conservation is subject to the environmental impact assessment process required for proposed activities on the property.

I found the Río Cóndor Project was not on the minds of many people I met in Santiago, beyond those I interviewed, but it certainly was in Punta Arenas and Porvenir. Conversations in pubs, restaurants, cafés, on the streets and cab rides offered me valuable interaction and further opportunities to gain insight into different perspectives of the project, and life in Chile in general. An environmental conscience was somewhat evident throughout Chile, but this environmentalism was generally a situated pragmatic and instrumental perspective, which supports human dominance over nature and the primary belief that natural resources exist for human use. However, my desire to socialize was not solely to "gather data" but to enjoy my opportunity to mingle in a culture and region that I have been interested in travelling to for many years before formulating this project. Collecting secondary data such as reports, legal documents, media articles took place throughout my fieldwork during interviews, searching the Internet, and visiting libraries, government agencies, the legal institutions in Punta Arenas, and various other public offices.

Before arriving in Chile, I established a few contacts after attending the 2003 World Temperate Rainforest Conference in Victoria, British Columbia, Canada. I was fortunate to meet and socialize with environmentalists from Chile such as Malú Sierra of Defensores del Bosques Chileno (Defenders of the Chilean Forests), Hernán Verscheure of Comité Nacional pro Defensa de la Fauna y Flora (CODEFF, National Committee for the Defence of Flora and Fauna) and Rick Klein of Ancient Forest International, California, US. I contacted these people when I arrived in Santiago (I contacted Rick Klein when I was in Pucon in December 2003) and began the investigative role of identifying and seeking out people from the different groups I intended to interview: state, forest company/industry, media, environmental groups, and aboriginal people. Throughout the interview experiences, contact sources began to snowball as I was given names of people to talk with, and in conjunction with searching on the internet and pulling out names from various secondary data sources I collected, I ended up with more people to speak with than time or finances would permit. I then focused on balancing representation of perspectives from all five of the groups I was pursuing. In addition, my initial strategy was to only speak with whom I considered as key representatives of the five main groups. However, while I did intend to limit my interview numbers, I did not pass on the chance to talk with anyone involved in hopes of enriching my perspective of the dispute and Chilean culture. In the end, I interviewed 40 people to inform this project (see **Table 1** for list of interview participants)[8].

[8] The interview extracts used in this thesis are cited in the following format or version of it: the interviewee's real name, title, organization, location of interview and the date of the interview.

Table 1 **List of interview participants in the order conducted.**

(note: not all interviewees were cited directly in thesis)

Chile

Name:Title	Affiliation (Social Actor)	Site of Inter-view	Date of inter-view	English/ Spanish	Translator
Malú Sierra: National Coordinator	Defensores del Bosque Chileno (Enviro-group)	Stgo, Chile	Oct 3/03	English	n/a
Adriana Hoffman: Director	Defensores del Bosque Chileno (Enviro-group)	Stgo, Chile	Oct 6/03	English	n/a
Ivette Martínez: Punta Arenas Representative	Defensores del Bosque Chileno (Enviro-group)	Stgo, Chile	Oct 7/03	Spanish	Chauncey Brooks
Bernardo Reyes: Director of Ecological Economics Program	Instituto de Ecologia Politico (IEP) (Enviro-group)	Stgo, Chile	Oct 10/03	English	n/a
Jimmy Langman: Freelance Journalist	Media	Stgo, Chile	Oct 10/03	English	n/a
Iván Benoit: Employee of Flora and Fauna Dept. of Wild Patrimony	CONAF (State/Govt)	Stgo, Chile	Oct 14/03	English	n/a
Hernán Verscheure: Forest Program Coordinator	CODEFF (Enviro-group)	Stgo, Chile	Oct 20/03	English	n/a
María Luisa Robleto: Forest Campaign Director	Greenpeace South Pacific (Enviro-group)	Stgo, Chile	Nov 3/03	Spanish	William Osmond
Harald Schmidt: Forest Engineer/Professor - University de Chile	Forest Engineer/Scientist; leading expert in lenga forests	Stgo, Chile	Nov 13/03	Spanish	William Osmond
Nicolo Gligo V.: Director of Alliance for the Forest of Chile.	Allianza del Bosques de Chile (Enviro-group)	Stgo, Chile	Nov 19/03	Spanish	William Osmond
María Teresa Arana Silva: Forest Engineer; Technical Studies Dept.	CORMA (State/Govt)	Stgo, Chile	Nov 21/03	English	n/a
Luis Contreras General Manager	Forestal Savia (Forest Company/Industry	Stgo. Chile	Nov 24/03	English	n/a

Fernando Dougnac Rodríguez President of Fiscalia del Medio Ambiente (FIMA) (Environmental Public Prosecutor Office)	FIMA –lawyer within environmental movement (Enviro-groups)	Stgo, Chile	Nov 25/03	Spanish	Guillemette Koning
Carlos Noton Forest Engineer; Environmental Coordinator 1994-98	CONAF (State/Govt)	Stgo, Chile	Nov 26/03	English	n/a
Sylvia Hormazabal: Environmental Evaluator - CONAMA – Coordinator of CONAMA Region 12 during Dispute	CONAMA Stgo (State/Govt)	Stgo, Chile	Nov 28/03	Spanish	Guillemette Koning
Rick Klein: Executive Director	Ancient Forest International (AFI), California, US (Enviro-group)	Pucon, Chile	Dec 22/03	English	n/a
Gabriel Rodríguez: Operations Manager Forestal de Trillium Ltda.; Forest Manager with Forestal Savia Ltda. after employment with MICSA	Forestal de Chile Ltda. and Forestal Savia Ltda. (Forest Company/ Industry)	Punta Arenas	Jan 22/ 04	English	n/a
Manuel González: Director of La Prensa Austral, Punta Arenas since 1993	Media	Punta Arenas	Jan 31/04	Spanish	Rodrigo Sirón
Patricia Cifuentes: Reporter	Polar Radio (Media)	Punta Arenas	Feb 3/04	Spanish	Rodrigo Sirón
Ricardo Salles: Intendente of Magallanes until 2000; Director of COREMA	Govt of Chile; COREMA (State/Govt)	Punta Arenas	Feb 4/26, 2004	Spanish/ English	Rodrigo Sirón
Francisco Sotomayor: Regional Director	CORFO (State/Govt)	Punta Arenas	Feb 11/04	Spanish	Rodrigo Sirón

Christian Miranda: Eco-tourism operator; background in Conservation Biology and Tourism	eco-tourism operator	Punta Arenas	Feb 12/04	Spanish	Rodrigo Sirón
José Larson: Forest Engineer during key period of dispute (1995-2000); now Regional Director of CONAF	CONAF- Region 12 (State/Govt)	Punta Arenas	Feb 13/04	Spanish	Rodrigo Sirón
María Christina Lagos: Agronomist and Manager of SEIA	CONAMA (State/Govt)	Punta Arenas	Feb 18/04	Spanish	Written response
Mauricio Rosenfeld: Forest Engineer/Forestry Consultant/Professor University of Magallanes	Forest Industry	Punta Arenas	Feb 19/04	Spanish	Rodrigo Sirón
Mauricio Alfredo Doberti: Forest Engineer	Ex-Trillium Forest Engineer (Forest Industry/Company) 1992 w/MICSA; 1994-97 Manager of Río Cóndor and editor of EIA with Trillium	Punta Arenas	Feb 23/04	Spanish	Rodrigo Sirón
Bedrich Magas: Director of IDDEA; Professor at University of Magallanes	IDDEA (Enviro-group)	Punta Arenas	Feb24&26 2004	English	n/a
Nelson Aguilera: Anthropologist; Director of CONADI	CONADI: Indigenous Affairs Punta Arenas (State/Govt/Aboriginal)	Punta Arenas	Feb 25/04	Spanish/ English	Rodrigo Sirón
Sylvia Marina Vera: Governor of Tierra del Fuego 1990-2000	Govt. of Chile (State/Govt)	Porvenir, TdF	Mar 3/04	Spanish	Andrea Andrade Pacheco
Marta Soto Andrade: Community leader	Community Resident of Porvenir	Porvenir, TdF	Mar 3/04	Spanish	Andrea Andrade Pacheco
Teodoro Valdebenito Riquelme: Community leader	Community Resident of Porvenir	Porvenir, TdF	Mar 3/04	Spanish	Andrea Andrade Pacheco

Hugo Gallegos: Director of High school in Porvenir	Community Resident of Porvenir	Porvenir, TdF	Mar 3/04	Spanish	Andrea Andrade Pacheco
O'Bispo (Bishop) Tomás González: Catholic Bishop of Region 12; Founder of FIDEXII	Bishop; Community member/enviro-group	Punta Arenas	Mar 4/04	Spanish	Rodrigo Sirón
Rolando Martínez: Reporter; La Prensa Austral during dispute and currently w/El Mercurio	Media -	Punta Arenas	Mar 5/04	Spanish	Rodrigo Sirón

North America

Name:Title	Affiliation (Social Actor)	Location of Interview	Date of Inter-view	English/ Spanish	Trans-lator
Wayne Schwandt (Director of Latin American Operations)	Trillium Corp. (Forest Company/ Industry)	Bellingham, WA, US	July 7, 2004	English	n/a
Rand Jack (First Land Steward for Río Cóndor Project 1995/6)	Trillium Corp. (Forest Company/ Industry)	Bellingham, WA, US	July 7, 2004	English	n/a
David Syre (Chairman and CEO Trillium Corporation)	Trillium Corp. (Forest Company/ Industry)	Bellingham, WA, US	July 30, 2004	English	n/a
Steve Brinn (President and Vice Chairman of Trillium Corporation ~1993-2002)	Trillium Corp. (Forest Company/ Industry)	Bellingham, WA, US	July 30, 2004	English	n/a
Dr. Jerry F. Franklin (Forest Ecologist, Professor University of Washington, US; Second Land Steward since 1996)	Trillium Corp. (Forest Company/ Industry)	University of Washington, US	July 19, 2004	English	n/a
Pat Rasmussen (Forest-Americas Coordinator, 1998-2004)	American Lands Alliance (Enviro-group)	E-mail correspondence (Washington State, US)	June 9, 2004	English	n/a

Unfortunately, I was not able to speak with everyone I was wanting to because of time and financial constraints. A key group of people with an important role in this forest dispute are the scientists who worked with Trillium on the ISC and involved in providing studies, feedback or general opinions of the Río Cóndor

Project. While attempts were made to interview Dr. Mary T. K. Arroyo, lead coordinator for the Independent Scientific Commission, she declined on two occasions to participate in my research stating she did not want to discuss the topic anymore. In addition, interviews with other scientific members of the ISC, Chilean scientific community, and forest engineers knowledgeable of the Río Cóndor Project, and active in environmental issues in Chile, would have broadened my research. I would have also preferred more time in Tierra del Fuego interviewing additional members of the communities who were recipients of the proposed socio-economic benefits of this project. Lastly, I was unable to speak with representatives of all the environmental groups such as those from Fundácion para el Desarrollo de la XII Region Magallanes, (FIDEXII, Foundation for the development of Region 12, Magallanes) of Punta Arenas and Red Nacional de Acción Ecológica (RENACE, National Network for Ecological Action) of Santiago, and Finisterrae in Ushuaia, an environmental organization on the Argentinean side of Tierra del Fuego. In the US, I did not include environmental representation from conservation groups such as Nature Conservancy and World Wildlife Fund[9] who had various discussions with Trillium concerning land steward responsibilities.

After transcribing the 40 interviews and organizing secondary data, I developed a data analysis strategy. The interviews were analyzed from a narrative approach to allow the "voices" and words of people involved in the forest dispute to co-mingle and become a story told to you, the reader. To organize each interview, I created a coding system (see Appendix VII), which targeted salient information of the dispute based on my theoretical insights and participant observations.

Limitations and Ethical Considerations

Limited time and financial resources have played a significant role throughout this project. However, lack of external funding has also benefited this project by enabling me to construct and write a thesis I believe captures my own interpretation and perspective of the forest dispute. This does not mean my interpretation is unbiased; I am very aware of my bias as being very critical of the way we organize our societies to produce, distribute, consume and dispose of our needs and wants. In particular, I am interested in forestry issues and am very critical of industrial forestry. I am not against logging, but I am critical of logging objectives that place economic growth or profit over social and ecological justice. I believe I conducted my research in such a way that I remained as open-minded and curious as possible. It is my passion and conviction for social and ecological change that has motivated my work, which I think makes a more meaningful contribution to scholarly writing and social and ecological change overall.

[9] Trillium attempted to create a partnership with World Wildlife Fund (WWF) prior to their arrival in Chile in hopes of coming up with a strategy that was "disarming to people who would reflexively be critics" (Steve Brinn, then President of Trillium Corporation, WA, US, July 30, 2004). Included in this strategy was their voluntary participation in the SEIA process. According to Brinn, the partnership fell through for reasons he was unable to determine (Steve Brinn, then President of Trillium Corporation, WA, US, July 30, 2004.)

An additional significant limitation is the fact that I arrived in Chile with only a basic grasp of Spanish. I had a limited vocabulary and sense of pronunciation, which both proved sparse when initially encountering the high tempo and slang of Chilean Spanish. Therefore, much of my spare time in the field was spent working on Spanish and learning the language by being immersed within it. While my Spanish improved during my six months, I remain limited in fluency.

I used translators during interviews conducted in Spanish and hired a Chilean friend in Vancouver to transcribe and assist in translating all Spanish interviews. I am very grateful to my two main translators: Will Osmond in Santiago and Rodrigo Sirón in Punta Arenas, whom I found when soliciting for professional translators. On the odd occasion that Will or Rodrigo were unavailable, Guillette Koning, introduced to me by Will, and Chauncey Brooks, working at Defensores del Bosques Chileno in Santiago and Andrea Andrade Pacheco in Porvenir, arranged by Sylvia Vera, Governor of Tierra del Fuego 1990-2000, offered their expertise. Therefore, in each case, someone else was involved in shaping and interpreting the interview process, which raises the concern of accuracy in interpretation. My main strategy was to try to have the least number of translators/transcribers involved as possible and a sense of consistency throughout. I also attempted to get to know them in hopes of developing a sense of their perspective on this project and Chilean culture, politics, economy, current events, etc, in general. Over time though, as my Spanish improved, I began to understand the interviews at a general level of comprehension and this gave me a better sense of the translators' interpretation compared to my understanding.

Eduardo Mandiola, in Vancouver, British Columbia, Canada, transcribed the interviews conducted in Spanish. I transcribed the interviews conducted in English (an approximate 20/20 split). I also listened to the Spanish interviews as a means to ensure accuracy of the transcriptions and to better familiarize myself with the content. From there, I created categories to code my interviews and organize the data. Analysis of interview excerpts remained at a literal level for the purpose of providing the voices of people involved in this forest dispute as opposed to discourse analysis. As for translations, Katharine Allen and Alejandro Astudillo of *Sierra Sky Interpreting & Translation*, California, US, (I met Katherine Allen at the World Temperate Rainforest Conference in Victoria, BC, in May 2003) provided their service and proficiency. I am grateful to them all for their attention to detail and timely efforts.

I conducted all Interviews according to the preferred location and time of each interviewee. I produced and explained the document containing the research objectives, risks and benefits as per required for ethical research along with the rationale for signing a consent form. In some cases, while contacting and requesting interviews from people, they requested a sample of my questions[10]. In every case, I sent them the actual questions I used during the interview. I required and received informed consent for each interview

[10] Three of the forty questionnaires were sent out sent out before the actual interview taking place.

and approval to record, with audiotape, the interview. In some instances, people were reluctant to sign the consent form due to skepticism as to who I was and about the intentions of my visit (i.e., I was questioned at times as to whether I was an environmentalist or a Trillium employee). In response, I suggested we continue with the interview and that they later examine the contents and decide whether or not to participate. I explained if they decided not to participate, I would voluntarily destroy the tapes used to record the interview. In every case, people agreed to participate.

Interviewing in Punta Arenas presented interesting moments when following the above procedure of acquiring informed consent. A number of people laughed when they read the ethics form and asked why a "committee" way up in Vancouver, Canada would be interested in listening to or acting upon their concerns. In addition, many people were unclear as to the purpose of the informed consent because ethical consideration is not common in university research in Chile. I explained that the purpose of the ethics form/informed consent is to ensure the interviewee's rights and interests are protected. I explained to the best of my ability my objectives and purpose for our interview. I also confirmed that they had access to e-mail so they could contact me personally if they had any concerns or questions at any time. In every case, people agreed to sign and voluntarily participate in the research.

Other incidents throughout the interviewing process presented many cases in which people from different actor groups, particularly in professional positions such as government agencies, academia and some environmentalists, were initially apprehensive possibly about my intentions or in discussing the specific subject matter. However, after dealing with the consent forms and beginning the interview, most people provided me with more than the information I requested. Overall, I found the people involved in this forest dispute very keen to have their perspective heard and included in my research. My objective thereafter has been to ensure their voices be represented accurately and fairly.

Included in the consent form was the opportunity to ensure confidentiality of the person interviewed. While my written and verbal consent states that I will ensure confidentiality by creating pseudonyms, interviewees usually provided verbal permission to reveal their actual identities. Although I did not receive written permission to use people's names, I feel that I am acting appropriately in using people's names without putting my interviewees in an incriminating or unwanted position. The project was a public dispute and most people I interviewed were in a public or well-publicized position. In addition, ensuring anonymity is inappropriate for this research because I met with each interviewee in person and use their real names (with the exception of one emailed interview).

An interesting experience during fieldwork was the reaction to my research objective statement issued to each interviewee, which often resulted in an often-agitated response by the interviewee to the concept of clear-cutting (see Interview Package in Appendix V). During my preliminary data collection before

arriving in Chile in September 2003, my perspective of the Río Cóndor Project was informed by the Internet and media sources in North America. From these Northern sources of information and my own environmental perspective heavily influenced by the normality of clearcutting in British Columbia and the Pacific Northwest, I assumed, without question, that clearcut logging was the harvest method selected by Trillium Corporation. When I began to encounter various people, including many from the environmental movement, they were very distraught by my use of the word "tala rasa" (Spanish equivalent to clearcut) in my statement. As a result, I realized that I had not questioned my own assumptions or the accuracy of information gathered in North America.

I eventually omitted the word tala-rasa from my research statement after arriving in Punta Arenas in January because I decided that it became more of an obstacle than offering me insight or useful information. However, I did include it in my list of questions thereafter. In the end, I realized that informants were very sensitive to the concept mainly because it was never going to be the harvesting method chosen for the Río Cóndor Project. As discussed in more detail in Chapter 5, some informants in Chile explain that they understand the popularity and contentiousness of the concept in the North American environmental movement context, but in the case of the Río Cóndor Project, the concept of clearcutting was imported from the North and did not reflect the actual objectives of the forest project in Tierra del Fuego. There was a distinct commitment on the part of Chileans involved in this forest dispute to upholding accuracy and honesty in regards to the details of the forest project as opposed to the inaccurate claims by Northern environmental groups, and myself, who assumed without question clearcutting was to be employed in Tierra del Fuego.

I encountered other ethical dilemmas during my social interactions with people involved in my research. I often socialized with people I interviewed or who were associated with the forest project, particularly in Punta Arenas. I rented a room from a family in Punta Arenas who were friends of an employee of Trillium, and consequently, I received generous invitations to various asados (BBQs) and social activities. I also enjoyed meals and time spent with different environmentalists in Santiago, Pucon, Punta Arenas and Yendegaia, Chile. A particularly interesting moment I recall was in Pub Alemán in Punta Arenas, which I frequented to socialize or reflect on research. On one Friday night, I found myself in the company of a roommate from my house who worked for (CONAMA) and an anthropologist I met who was critical of the project. At the same time, the general manager of Trillium in Punta Arenas sat at the bar and the cook, the mill operator for Trillium, served up some of the most delicious pizza I have ever had. As I enjoyed my pisco beverages, I suddenly realized I was in a potentially difficult situation surrounded by people with distinctively different positions within the forest dispute all nearly within arm's reach. While this example reminds me today of a minor ethical dilemma, I never considered associating with people involved in the project as

problematic, since I always remained open and clear on what I was researching and why. How people interpreted my explanation is another question, since people rarely understood the association between Sociology and forestry, not unlike my experience here in North America.

After returning to Canada in 2004, my fieldwork took me to Bellingham WA, US, where I interviewed members of the Trillium 'team' in the North. In particular, this involved the opportunity to interview David Syre, Chairman and CEO of Trillium Corporation and the only person to my knowledge that has been affiliated with Trillium from the initial conception of the project until today. Common in researching corporate elites or key corporate stakeholders is the challenge of accessing and being given an opportunity for an interview with a CEO, since they usually maintain their closed worlds by a shield of bureaucratic barriers (Hertz & Imber, 1995; Odendahl & Shaw, 2002). In the case of David Syre, I was not expecting to have the fortune of conducting an in-person interview with him because of his status and position in the company. My intention was to interview Wayne Schwandt, Director of Latin American Operations, Trillium Corporation, Bellingham, WA, US, which I did, to glean information from him as well as gauge the possibility of accessing David Syre. As it turned out, when I went to meet with Wayne Schwandt at the Semiahmoo Resort in Bellingham, WA, I coincidentally encountered David Syre at the same time. I was introduced and proceeded to request an interview, to which he enthusiastically agreed. I contacted David Syre soon after our encounter and the interview took place on July 30, 2004 at the Trillium headquarters in Bellingham, WA, US.

I entered the interview knowing the power differentiation between David Syre, a successful corporate elite member, and myself, a university graduate student. However, I approached, conducted and analyzed this interview as I did for every other interview in this study. In keeping with consistency and ethical responsibility, I ensured he understood my research intentions so as not to mislead him about my purpose, particularly since David Syre has been the centre of controversy among community members of Bellingham and now throughout parts of Chile. I also requested an informed consent signature, which he provided without question. Syre appeared very keen to have his perspective heard in my research. He was very articulate in answering my questions and even turned the interview around and asked for my opinion on my own questions. I took this strategy to suggest that he was as interested in my perspective, having recently returning from my fieldwork in Chile, as I was keen to interview him. He was forthcoming with information during the interview and offered me access to any documents, maps, photos, reports, etc. pertaining to the project that were not obviously confidential. My experience was similar with all the Trillium associates I interviewed. I did ask for documents and photos from Luis Contreras, General Manager, Forestal Savia while I was in Santiago, Chile, to which he ardently agreed provided I acknowledge the source in my thesis as I did in the "Acknowledgements" section (p. v).

Organization of Thesis

In order to understand how key social actors in the domestic and international sphere contributed to halting the sustainable development strategy of the Trillium Corporation in Tierra del Fuego by exploring the process of contesting ideas of environmentalism and sustainable development and the different initiatives to bring about, or resist, implementation of the Río Cóndor forest project, I have organized the dissertation as follows:

Chapter 2 provides a theoretical review and discussion of Political Ecology, sustainable development, social movements and environmentalism. This chapter explores the political and economic context of forestry, locally and globally, and offers various 'streams' or perspectives on sustainable development and environmentalism. It argues that some theories and concepts are generally helpful in understanding sustainable development and environmentalism, but what is sustained and for what purpose in the context of sustainable development is socially constructed within a particular paradigmatic perspective of the relationship between humans and nature. Whereas understanding environmentalism in terms of categorizations in which the different social actors are situated within the continuum of ecocentric and technocentric forms of environmentalism and streams of a 'cult of wilderness' and 'gospel of eco-efficiency' are all particularly helpful in understanding the recent dispute surrounding the Río Cóndor forest project proposed for Tierra del Fuego, Chile.

Chapter 3 explores the Chilean state in terms of understanding its role in the historical and contemporary political ecological context informing or informed by the socially constructed ideas of environmentalism and sustainable development. Based on Chile's past and present priority in achieving economic development predicated on a low-valued, export-oriented development model, I examine the history of institutionalized environmentalism and the initiatives taken by the Chilean government in 'greening' the state. In exploring this political ecological context, I argue that the history of Chile's colonial development and its recent political economic and environmental history both illuminates the state's adopted form of technocentric environmentalism and interpretation of sustainable development but that it also hinders the extent the Chilean state can employ, for example, initiatives for natural resource use and for alleviating ecological degradation. While I do consider the state to be a key actor in this dispute, for this thesis, we will only explore its role in terms of analyzing state institutions and frameworks, like the law and judicial processes as salient context for the actions and initiatives employed by Trillium and the environmentalists. Subsequently, we will understand the necessary historical and political context in Chile to provide a brief history of land use, political participation, environmentalism and development in Chile. Emphasis is placed on the Pinochet period (1973-1990) in relation to the political climate and infusion of

neo-liberal ideas, which contribute to perpetuating Chile's entrenched global position as an export-oriented economy based upon primary production of natural resources. Lastly, I examine the level of environmental consciousness in Chile at various moments in time in relation to the Río Cóndor Project before moving into its evolution in the subsequent chapter.

Chapter 4 moves us directly into the evolution of the Río Cóndor Project and introduction to the second key social actor examined from this forest dispute, Trillium Corporation. The chapter illuminates why large-scale sustainable forestry (albeit industrial), as opposed to 'traditional' large scale industrial forestry, was paramount to the Trillium Corporation, who voluntarily underwent the environmental impact evaluation process in Chile to establish credibility and trust with Chilean society in Trillium's progressive project objectives. I also identify Trillium's perspectives of sustainable development and their particular form of environmentalism and how Trillium and the Chilean government took different initiatives in bringing about implementation of the Río Cóndor Project. I argue in this chapter that while the Río Cóndor did offer a progressive form of sustainable development, also evident were aspects that led me to question what exactly was going to be 'sustained'.

Chapter 5 continues to unfold the story of the Río Cóndor forest dispute as we hear from other voices namely the third key social actor examined, the environmental movement. In particular, I explore the environmental movement's predominantly ecocentric perspective of sustainable forestry, different streams of environmentalism within the movement and key initiatives taken to bring a halt to the Río Cóndor Project. We will discover how the environmental movement gained political proficiency in Chile through an effective litigious strategy coupled with internationalizing their reach through coalition building with ENGOs beyond the sovereign borders of Chile.

Chapter 6 provides a conclusion and discussion as to what the dispute surrounding the Río Cóndor sustainable forest project reveals about the challenge of developing sustainable forestry in Chile. In particular, the dispute reveals that key actors in the Chilean domestic and international sphere adapt and resist socially constructed ideas of sustainable development and environmentalism. This chapter concludes this thesis along with discussing my thoughts on the forest dispute. Included in this chapter are lessons about the process of developing sustainability inferred from interviews or indicated as my opinion based on secondary data or participant observations for the Chilean State and from Trillium and the environmental movement. In addition, I discuss ideas or issues not explored in the forest dispute as suggestions for future research and ideas to consider as Chile advances towards the challenge of developing sustainable forestry.

Lastly, in the spirit of Nicolo Gligo's (2002) encouragement to contribute different perspectives on this forest dispute in, *La Batalla por los Bosques de Tierra del Fuego/The Battle for the Forests of Tierra del Fuego*, I offer this analysis in hopes of revealing useful ideas or information to the people of Chile and

beyond of the elusive and often discordant process of achieving sustainability. However, this thesis is not a comprehensive account of the Río Cóndor forest dispute. In particular, whereas I examine only three key social actors: the Chilean state, Trillium and the environmental movement, examining other actors such as the media and the public would make for a more comprehensive analysis, which also offers opportunity to advance this research and the number of perspectives of this forest dispute. Ultimately, my intention throughout this research has always been to be true both to myself and to the voices of my informants, to whom I am greatly indebted for their participation.

Chapter 2
Perspectives on Development, Environmentalism and Forestry

Introduction

This chapter moves us into the theoretical underpinnings of this thesis as well as a general literature review of the global and Chilean forestry contexts. The chapter explores the key theoretical domains of Political Ecology, sustainable development, social movements and environmentalism. In particular, I will identify how it is that the concepts of sustainable development and environmentalism are interpreted by social actors' positions in the Río Cóndor forest dispute. Sustainable development, or the balancing of social, economic and ecological aspects is a central concept for this thesis and the Río Cóndor Project, however, what is sustained and for what purpose is socially constructed within a particular paradigmatic perspective on the relationship between humans and nature. Consequently, environmentalism, an encompassing concept that includes a plethora of different philosophies and practices, is explored in terms of categorizations in which the different social actors are situated within the continuum of ecocentric and technocentric forms of environmentalism and streams of a 'cult of wilderness' and 'gospel of eco-efficiency'. The two concepts of sustainable development and environmentalism are inherently linked because the latter concept significantly influences the extent to which the former addresses ecological aspects within what has amounted to a history of development strategies that prioritize economic development over ecological protection.

Political Ecology

I believe Political Ecology (PE) provides a useful explanatory framework for the Río Cóndor forest dispute. In particular, the literature on sustainable development discussed in the following sub-section under dependency theory helps us to understand the political and economic context in which the project evolved and the historical and contemporary position of Chile in the global forest industry. In particular, it shows how Chile's economic and environment policies are influenced by national and international institutions, organizations and social movements.

In shaping the political and economic context in which the socially constructed ideas of environmentalism and sustainability exist in the Río Cóndor forest dispute, PE provides an explanatory framework of Chile's colonial development and its recent political economic and environmental history. PE is informed by the assumptions and ideas of political economy and developed in response to criticisms found within a-political Neo-Malthusian explanations and solutions that identify environmental problems in isolated terms that require technocentric solutions, such as alleviating population growth or modernizing agricultural techniques (Bryant & Bailey, 1997). PE advances an analysis of a "politicized environment," a term coined in the political ecology literature, and presents the understanding that environmental problems do not occur in isolation from the political and economic context, which cultivates the problems in the first place (Bryant & Bailey, 1997). A key theme in PE recognizes that isolated 'quick-fix', technical policy solutions are insufficient in alleviating environmental problems and instead call for a broader, more comprehensive analysis of society.

However, assumed in the idea of a 'politicized environment' is that the environment is a space in which conflicts over access or control unfold. Zimmerer & Bassett (2003) argue that the biophysical world also influences and plays an active role in shaping human-environmental dynamics. Examining this "social-environmental interaction" is where the natural sciences, such as ecology, play a significant role, but not without the understanding that "how these processes are chosen for study and how we eventually explain human-environmental interactions takes us to the politics and culture of the representation of 'nature' and the narratives that give them form and meaning" (p. 3). For Zimmerer & Bassett (2003), this idea of the environment having agency in its own right and an ontological basis coupled with the idea that nature's agency is socially mediated is what is called "critical realism" (Eden, 2001, as cited in Zimmerer & Bassett, 2003).

Political ecology embodies other post-structuralist perspectives on a variety of environmental problems and contexts. For instance, Zimmerer (1996) examines contending discourses surrounding soil erosion in Brazil, Peet & Watts (1996) explore social and political emancipation in Liberation Ecology while Escobar (1996) explores the social construction of nature. However, exploring the constraints and influence of social structures by structuralist scholars is equally significant in PE. Bryant & Bailey (1997) identify a common theme in PE literature, which recognizes that environmental problems are not simply a reflection of policy or market failures; instead, they are a manifestation of broader political and economic forces, namely the global spread of capitalism particularly since the 19th century. For example, eco-socialist scholars explain how the structural features of capitalism foster environmental degradation by arguing that ecological problems correlate with social processes (Foster, 2000; Leff, 1993; O'Connor, 1988; Pepper, 1993; Sweezy

& Magdoff, 1989). In particular, eco-socialism addresses how we produce, distribute, consume and deposit our biological and culturally defined needs/wants and the impact this has on environments and society.

Broad in its range of analytical approaches, contexts and geographic locations, Political Ecology is criticized for lacking a common theoretical 'footing', although, attempts have been made to generate one (see Blaikie & Brookfield, 1987; Stonich, 1993). Consequently, it remains an ambiguous explanatory framework in contrast to the fields of Human Ecology, Social Ecology, or traditional dependency theories/world system theories (Bryant & Bailey, 1997). In addition, PE remains fixated on an explanatory scope and offers little towards alternative solutions. Despite these flaws, you will find that PE offers us a useful explanatory framework in understanding the Río Cóndor forest dispute, such as understanding global development agendas.

Development

Modernization development strategies (e.g., Rostow, 1960) emerged in the early 1960s in response to global economic disparity and consisted of extending mainstream economic development strategies of More Developed Countries (MDCs) into Less Developed Countries (LDCs), but also incorporating social and institutional changes as well. Modernization theory advocated that LDCs embrace MDC development strategies, which required adopting Northern-based technological advancements in, for example, production systems where traditional or 'backward' cultures are perceived as an impediment to development. In contrast, dependency theorists such as Gunder Frank (1969) presented an alternative view of development, which does not require LDCs dependency upon MDCs for modernization and industrialization. For dependency theorists, the economic disparity of LDCs was not the result of cultural, social or economic deficiencies; instead, the position of LDCs in the global economy is linked to the historical development of Western capitalism predicated on the exploitation of labour and the environment in LDCs (Bryant & Bailey, 1997). Characteristics of perpetuating LDCs' dependency on MDCs include export-oriented economics, limited industrial capacity, and increased foreign debt. As a result, LDCs have truncated economies that are economically susceptible to boom and bust cycles of resource extraction while remaining dependent on the rich nations for various types of aid (e.g., capital, market access, technology). More specifically, "as states become dependent on trade and investment linkages with the outside world, they often lose the ability to control the development process" (Bryant & Bailey, 1997, p. 73).

For Bryant & Bailey (1997), as developing the world became important objectives for countries and corporations of the North since 1945, LDCs were seeking capital-intensive investments in hopes of 'catching-up' to the North. Opportunities for LDCs to develop were provided by multilateral institutions such as the World Bank, International Monetary Fund (IMF), United Nations, Transnational Corporations (TNCs)

and nation-states from MDCs in the form of financial loans[11], structural adjustment policies and technocentric resource management (Bryant & Bailey, 1997). For Escobar (1995), development policies and strategies during the post-war era became effective tools in perpetuating historical control mechanisms in developing underdeveloped nations to benefit Northern societies. However, as the Western world began to awaken to the ecological realities faced by Western-driven industrial development during the 1970s, a new way of developing -- sustainable development -- began to capture the imagination of local, national, and international policy makers throughout the world.

Sustainable Development

Informed by the spirit of the Club of Rome, the Stockholm Commission and the World Conservation Strategy, the concept of sustainable development offered an opportunity for embracing egalitarianism, social development, 'limits' to economic growth and the use of science for environmental management and protection. In 1987, The World Commission on Environment and Development (WCED) (synonymous with the Brundtland Commission) aspired to change the world's ideas of economic development and environmental protection. Headed by Norwegian Prime Minister Gro Harlem Brundtland, the Brundtland Commission presented a definition of sustainable development and measures for achieving improved environmental management, including technological innovation, which became the basis of merging economic development with the reality of ecological limits. In other words, with sensible planning and management, ecological constraints (or biosphere limits) are solvable with technology.

Mounting fear that pollution and ecological degradation was jeopardizing present and future survival of humanity during the 1960s and 1970s gave rise to a global awareness of the ecological consequences of industrial development. Acid rain, ozone depletion, and fear of nuclear war contributed to this growing international environmental consciousness; but, most important was the emerging perception that environmental fears were experienced on a global scale. Meadows et al. (1972) released the book, *The Limits to Growth*, presenting the argument that policies must be implemented to control the exponential growth of population, production and the use of resources before we experience a massive collapse in ecosystems. In addition, people began to realize the interconnectedness of our local actions to the global

[11] Brought on by the 1981-2 oil crisis, the Latin American debt crisis of 1982 ignited by the price collapse of oil, which meant that Less Developed Countries were unable to service debts accrued from the North. In particular, Mexico announced in August 1982 they were unable to repay loans to debtors, e.g., International Monetary Fund (IMF) and World Bank, accumulated during the post WWII period. Whereas loans were provided to less developed nations seeking to 'develop', according to Escobar (1995), Latin American countries paid out an average of $30 billion more than they received in financial assistance. The economic disparity was realized in 1982 when Mexico's announcement symbolized failure of development schemes orchestrated by Northern financial policy makers. The lack of development has lead many theorists such as Escobar (1995) to examine how LDCs have remained 'underdeveloped' by development agents in the North. The institutional consequence of the debt crisis was the imposition of Structural Adjustment Policies (SAPs) by the IMF, which looked to deregulate and open the economies of LDCs in hopes of stimulating economic growth. (For a synopsis of the 1982 debt crisis, see Gates, 1993).

sphere, particularly those actions involving the depletion or degradation of the environment such as acid rain, ozone depletion and nuclear war.

The consequences of limitless economic growth were destroying or damaging the essential life-giving characteristics of the environment, such as air or water, which form the basis for human survival. In other words, the idea of a single planet with environmental limits in relation to how and why resources were being used was put into question. For the first time in contemporary Western history, the inherent ideas such as perpetual growth of economic development and a finite planet were connected and questioned globally. The new challenge of balancing economic, social and ecological objectives offered a conceptual solution towards curbing the environmentally destructive impacts of economic growth.

In addition to the emerging environmental consciousness was a concern for the loss in credibility of economic growth achievements within development discourses. For neo-classical economics during the post-war era, development was viewed as essentially synonymous with economic growth. This involved either market-based or state development policies designed to maximize economic growth as the fundamental objective. By the 1970s, skepticism and a questioning of the "success" of development projects emerged in most LDCs, who were showing very little material improvement in people's quality of life (Brohman, 1996; Carruthers, 2001b). In fact, the opposite was happening with more and more people marginalized while only a small minority of the population benefited economically from modernization. Hence, for Escobar (1995), this marked the era of underdevelopment rather than development. From this evolved the realization that there needed to be a new or different form of development that looked beyond the economic benefit of a minority population wherein the environment was not perceived strictly as an externality for economic growth.

The Brundtland Commission exemplifies the concept of sustainable development within an economic paradigm based on the continuation of an economic growth imperative rooted within MDCs' worldviews or development discourses. In other words, the Brundtland Commission argues that poverty requires economic development to raise the standards of living. "Far from requiring the cessation of economic growth, it recognizes that the problem of poverty and underdevelopment cannot be solved unless we have a new era of growth in which developing countries play a role and reap large benefits" (WCED, 1987, p. 40). Therefore, the attention at the international level was to eliminate poverty in the LDCs, but through means designed by development agents in the North. However, in advancing from a definition and objective, actually operationalizing sustainable development became, and continues to be, the challenge facing development agents and countries in the North and countries of the South.

The 1992 Earth Summit launched a plan entitled, "*Agenda 21*" with the purpose of operationalizing sustainable development in the form of specific concrete measures and incentives. The basis of Agenda 21

is to "foster the sustainable use of natural resources for human development while ensuring a basic and healthful standard of living for all humanity" (Sitarz, 1993, p. 19). Implementation of the agenda is dependant upon participation by all groups in society e.g., industry, business, scientific and technology communities, educational communities, unions, local, province/state and national governments and all citizens or members of societies throughout the world (Sitarz, 1993, p. 19). However, despite the inclusive intentions of Agenda 21, when it comes to access to information needed to assist in guiding decision-making over economic activities and environmental protection, industrial countries enjoy a more privileged position compared to LDCs (Sitarz, 1993). In keeping with modernization development strategies, "the capacity of developing countries to assimilate knowledge, apply appropriate technologies and build a workable institutional framework must be enhanced. Industrialized countries must strengthen not only their own internal sustainable development programs, but also increase their efforts to provide support to the developing nations of the world" (Sitarz, 1993, pp. 20-21). However, for Redclift (1987), we must not neglect the fact that the international economic system arose out of an exploitative relation with nature. That is, the economic development regime of the North is dependent on exploiting the natural resources in the South.

For Redclift (1987), the Brundtland Commission constituted a significant event in history. Firstly, the Brundtland Commission not only created the link between environmental and economic development, but also a link between poverty and the environment in LDCs. Secondly, the framework of sustainable development has broadened its scope to include North–South relations as well as the notion of 'needs'. However, as Sachs (1997) questions, what needs and whose needs are protected? Will the needs of the affluent North or the impoverished South be met? Will it meet the needs of the environment or economic progress? Consequently, the concept of sustainable development can only be understood within the context in which it is used. What is to be developed and for what purpose is socially constructed within a particular paradigmatic perspective of the relationship between humans and nature. Important to the Río Cóndor forest dispute is the question of how the idea of sustainable development is adopted/adapted by different social actors and what initiatives were taken to carry out their interpretations.

For Sachs (1997), sustainable development is presented implicitly or explicitly in the contexts of a crisis of justice and a crisis of nature. From these fundamental ideas, different social actors construct perspectives that represent a position within the range of perspectives. Whereas ecological perspectives generally frame the environmental crisis in terms of limits, biodiversity, carrying capacity, and scarcity or ecological collapse, similar frameworks are found in economic perspectives that recognize the concern of resource scarcity and the need for limits to growth. What were once seen as incompatible and polarized perspectives (economic development versus ecological protection) are now merged through the concept of sustainable development in hopes of countering the crisis of justice and nature. In addition, and years

earlier, Sachs (1993) addressed the issue of the rise of 'eco-techs' leading the environmental management strategy for world-wide resource management embraced as sustainable development. For Sachs (1993), these eco-techs perceive the environment in terms of a commercial asset in danger of depletion as opposed to an ecological perspective framed in terms of a fragile biosphere requiring protection.

Macnaghten & Urry (1998) also deconstruct the concept of sustainable development, but in terms of, for example, how it incorporates the environment into economic development. They raise an important assumption here that economic development remains important, necessary, and undisputed in a society's quest for development. The idea of 'limits' emerges within this context as well, where limits are imposed onto economic growth in a way that theoretically prioritizes ecological characteristics in such a way so that it appears natural growth rates govern the rate of resource use. However, Redclift (1999) challenges the deconstructive analysis of sustainable development and calls for a framework that allows us to operationalize a more pro-active analysis in examining the concept. For example, Redclift (1999) explores the idea of 'needs' and how we define them within different cultures and that needs change over time – which is relevant to the idea of meeting the needs of today without sacrificing those of future generations. Here he examines an important assumption of sustainability within Northern discourses, which is that we *need* to increase both economic growth and employment before we can achieve sustainability.

Lastly, Redclift (1999) also challenges the idealistic perception that our understanding of nature and sustainability are socially constructed. The consequence of a constructionist perspective can shift the analysis of environmental problems away from the problems themselves (Redclift, 1999). Instead, Redclift argues "we are both materially and symbolically creative and destructive; we refashion our environments physically as well as cognitively" (1999, p. 67). That is, ideas pertaining to the environment are socially constructed, which influence the way in which we perceive and talk about the environment, along with the ways in which we intervene and ultimately change our physical surroundings. Therefore, he seeks to connect the cognitive reality with the physical or material reality of environmental problems as a framework for analyzing the concept of sustainability. Consequently, we can begin to understand the importance of examining how the socially constructed ideas of sustainable development and environmentalism inform not only how or why we as humans intervene in the biophysical world, but it also helps us better understand and analyze initiatives taken, for or against, human intervention with the biophysical world such as in the case of natural resource exploitation.

In the end, the socially constructed and elusive idea of sustainable development has become institutionalized into current national and global social processes, which influence whose ideas guide, exploit and include 'others' into dominant development agendas, resource management practices, and socio-economic objectives. The idea is socially constructed within a particular paradigmatic perspective of the

relationship between humans and nature and should therefore lead us to ask what exactly is being sustained and for what or whose purpose? For Trillium, sustainable development was the centrepiece of the Río Cóndor forest project, in that they embraced the concept according to the World Commission on Environment and Development's criteria and imported their Northern ideas of forest management and development into Chile.

Trillium's technocentric idea of sustainable development attempted to capture a middle ground in the dichotomous relationship between economic development and environmental protection. In the case of the Río Cóndor Project, the primary objective in putting sustainable development into practice was forest exploitation based on employing eco-tech management strategies for sustainable forestry in Tierra del Fuego, which would nurture both protection of the ecosystems and socio-economic development. According to the "Stewardship Principles" (see Appendix VIII) created by Trillium, "The Project's forests will be responsibly managed for indefinitely sustainable hardwood production, using the best available scientific knowledge to assure the protection of both the ecosystem and the well being of those associated with the Project. To this end, the average annual rate of harvest during any ten year period will not exceed levels that support an indefinitely sustainable harvest" (Forestal Trillium Ltda., 1993, p. 2 in document and p. 169 in thesis). To be more specific, the report published by the Independent Science Commission, which Trillium employed to undertake ecological studies in the property, summarized what sustainability was based on in the Río Cóndor Project:

- Sustainable production of quality of wood and forestry products of added value. *Woodchips as a primary product will not be produced;*
- Protection of biodiversity and ecosystem processes. *Exotic species of commercial forestry value will not be employed;*
- Recognition of other potential values, such as recreation, ecotourism, historical and archaeological values;
- Creation of employment and other social benefits to the peoples in the zone.

(Source: Arroyo et al., 1996, p. 18)

Whereas Trillium's approach to sustainable forestry is very impressive, we must also ask what exactly will be sustained throughout the 100-year rotation of the management plan (discussed in Chapter 4) particularly when they face the ecological 'limits' of the forests in Tierra del Fuego.

Social Movements

As the concept of sustainable development shaped the development strategies of institutional policy-makers throughout the world such as in Chile, environmental movements continued to play an

important role in alleviating environmental degradation and generating awareness surrounding environmental issues. Their platforms in general include: contributing to the ideas of limits, interconnectedness, ecological sustainability[12] locally/globally and the role of agency in challenging, re-articulating, or resisting social processes shaping human intervention with the biophysical domain. This is important because while the social processes such as market economics and globalization may appear inevitable or "natural," collective action is playing a vital role in articulating and resolving social conflict particularly since the onset of neo-liberalism in the early 1980s. Whereas Bryant & Bailey (1997) describe who these actors are, their role, and where they are situated within the global capitalist system, this section focuses on social movement theories and the way in which we can categorize them to understand their political role in society.

How social movements are categorized and studied remains open to scholarly debate (e.g., Della Porta & Diani, 1999; Laclau & Mouffe, 1985; Melucci, 1996; Touraine, 1988). Social movements in Latin America, and elsewhere, have been categorized into those which are "old" and those described as "new." Old forms of collective action consist of organized labour or popular movements who directed their actions/demands within traditional institutionalized political spaces and channels such as the state and political parties whereas new social movements are more complex and multifaceted. The environmental movement in Chile is best understood in terms of being a 'new' social movement whose counter-hegemonic ideas extend beyond class-based issues commonly associated with 'old' social movements.

Dating back to World War II, Calderon et al (1992) argue that Latin American societies have experienced profound transformations and have become increasingly complex, which has resulted in an increase in social demands. As the traditional political space -- state and political parties -- were unable to resolve social, political, ecological, and cultural needs, we have also seen the emergence of new social actors or social movements, which may or may not have developed in direct response to failing traditional political channels. Theorists began moving beyond the traditional boundaries of what constitutes the "political" and the structuralist explanations of social change. These new spaces have given rise to, for example, identity-oriented theories such as those of Touraine (1988) who maintains that social movements are the central group in the new social politics and political identities. For other scholars, the theoretical domain of social movements is explored in terms of new forms of political spaces in contrast to the traditional conceptions of the traditional way of doing politics.

Laclau & Mouffe (1985) argue that there has been an increase in politicized spaces in society because of new forms of subordination characteristic of post-war capitalist societies (e.g., increasing

[12] Ecological sustainability differs from that of economic sustainability - the former seeks to ensure the perpetuity of the inherent characteristics and integrity of ecosystems unlike the latter, which seeks to ensure the ongoing accumulation of capital and economic growth.

commodification, bureaucratization, and the increasing homogenization of social life itself) have created counter-hegemonic groups resisting the impersonal power of the market and the state. Laclau & Mouffe (1985) offer a theoretical explanation of collective practices as the formation of identities, which addresses questions or issues that "old" social movements were not including, such as hierarchical power dynamics within the movement, gender politics, sexual orientation, and ecological issues. These new social movements evolved out of or separate from old movements, such as organized labour, popular or peasant movements, where analysis focuses on class-based issues. In addition, unlike their predecessor, new social movements operate outside the formal political institutions and challenge the traditional way of doing politics.

The lived experiences of people linked to one's identity, lifestyle, or sexual orientation offer new domains for understanding social movements. For Alvarez et al. (1998) the post-structural perspective shifted the analysis from the 'cultures of politics' to the 'politics of culture' and the everyday lived experiences and behaviour of individuals. This new wide-ranging 'organic' conception of politics expands the traditional domain into spaces neglected in old social movement frameworks (Calderon et al., 1992). The new framework expands or moves towards examining a landscape of spaces which include new identities and where actions or discourses offer sociological windows for unearthing greater depth or insight into the lived experiences of people and how they influence social action.

Also evident in the Río Cóndor forest dispute, while the relationship between the state and society is never static, what appears to be consistent is the ultimate position of the state as a referent, "whether it is being approached, opposed, or kept at a distance" (Calderon et al., 1992, p. 25). The environmental movement in Chile positioned the state as their referent particularly in connection with their litigious initiative, which consequently transformed them into a powerful political force in Chile (see Chapter 5). This is also evident in their strategies beyond the courtroom in the form of civil disobedience located at state institutions. The environmentalists' choice to focus on government institutions is likely because of the legacy of past social movements whose strategy often focused on the state as a referent. In particular, past social movements focused on working with political parties and believed that the state could be "captured" in hopes of hegemonizing the new ideas of the social movement. However, during the Río Cóndor forest dispute, the state was not the only referent since the Trillium Corporation itself became a target, especially after the environmental movement bypassed the traditional institutionalized political spaces and internationalized their initiatives.

Environmentalism

The concept of environmentalism subsumes a plethora of philosophies and practices concerning our relationship to or interaction with the environment. The "environment" is a social construct referring to all aspects of the biosphere or natural world including human manipulations and additions. Conceptually, the environment is a fluid concept that should be understood in terms of being both culturally grounded and socially contested (Hannigan, 1995) despite its often regularized use and often assumed meaning as an absolute realm existing beyond our socially constructed interpretations. Engaging in protecting or conserving the environment is known as environmentalism, which is both a state of being and a set of policies (O'Riordan, 1976). Defining environmentalism is difficult, particularly when you consider the specific social and political context which influences our ideas and behaviour, since an environmental perspective is embedded in the social and political fabric of our daily lives (O'Riordan, 1976). However, ideas and behaviour do not evolve in isolation from an interaction with the environment; instead, just as we interact with and alter the environment, the environment is changing and altering our ideas and behaviour (Zimmerer & Bassett, 2003).

Environmentalism for this thesis means the range of philosophies and practices seeking to "improve" the interaction between humans and the biophysical domain with a common thread focusing on the often associated destructive consequences of industrial development ideas originating in the North. While different cultures before the onset of industrialism have degraded or destroyed ecological elements on the planet, the rate and scale of degradation commonly associated with industrial development has not only informed the ecological claims made against the Río Cóndor Project, but also the purpose and creation of the project according to Trillium. In addition, formulating a definition of environment is further complicated by the rise of an international or global environmental movement, which is nearly exclusive to the Northern hemisphere context (Adams, 2001). This does not imply that environmentalism is anything but Western in perspective; different cultures have different understandings of their relationship to the biophysical domain. Environmentalism is not a universal concept despite domineering Northern ideas and perceptions of human relations with the environment (see Guha & Martínez-Alier, 1997).

Analyses of environmental movements differ between MDCs and LDCs. In the former, the environmental movement is said to be predominately a middle-class 'post-material' movement concerned with conflicts associated with issues centred on identity, environmental conditions and quality of life. Research in the South shifts examination towards material conditions of people in "ecology of the poor" (Martínez-Alier, 2002) or "defence of livelihood" perspectives (Friedmann & Rangan, 1993). Dwivedi (2001) suggests conceptualizing the environmental movement "as an 'envelope', as it encompasses a variety of socially and discursively constructed ideologies, and actions, theories, and practices" (p. 12). The

environmental movement in Chile is described as a microcosm of the international movement because many of the same debates are found in Chile (Rojas, 1994).

Categorizations of the discursive idea of 'Environmentalism'

In examining modern environmentalism in MDCs, Pepper (1996) offers us a useful continuum in which to make sense of the range of environmental perspectives in the Río Cóndor forest dispute. Albeit an overly simplified framework for illustrating the diversity of environmentalism, Pepper distinguishes a continuum between ecocentric and technocentric forms of environmentalism, in which different individuals or social actors can be located at different positions on the continuum. The advantage in organizing forms of environmentalism within the continuum enables us to differentiate how key individuals/social actors adapt or adopt different ideas all within the perception of having an "environmental" perspective. Consequently, Pepper's continuum is designed in such a way that allows us to understand some of the taken-for-granted philosophical assumptions or beliefs behind the relationship between humans and the biophysical world. In the case of the Río Cóndor forest dispute, the ideas of environmentalism adapted or adopted by key social actors can be located in or in close proximity to the extreme positions described below.

Ecocentric Environmentalism

Ecocentrics (e.g., Alliance for the Forests of Chile) are those that view human beings as a part of the global ecosystem and therefore subject to the laws of nature. They seek to constrain human activities within nature by imposing limits to economic and population growth. Their perspective is not anthropocentric, but instead centred on the natural ecosystems where humans are *a part of* nature and neither separate from nor dominant. A key characteristic is that they advocate a respect for nature in its own right based on a bioethical perspective that places non-human nature above or on par with humans. When it comes to technology, ecocentrism has a complex position; they are not anti-technology but question the ownership and control of technology by elites in society. They lack faith in modern large-scale technology and in the technical, bureaucratic, economic, and political elites of society.

Technocentric Environmentalism

On the other end of the spectrum, technocentrics (e.g., Trillium and the Chile state) recognize the ecological crisis but advocate that our current society will always be able to manage the constraints to achieve unlimited growth. This is achieved through careful economic and environmental management where they draw upon classical science, technology and the conventional economic reasoning (e.g., cost/benefit analysis). As a result, technocentrism does not advocate radical structural change to society and recognizes

reformist measures as exemplifying major change. Regardless of the position taken within Pepper's (1996) continuum, the perspective remains focused on the relationship between humans and the environment.

The global restructuring of forestry discussed later exemplifies the technocentric approach to alleviating diminishing supplies of soft-wood fibre sources in Northern regions and hardwood timber in tropical regions. With a shift to Southern sources of timber to feed the global appetite in wood-fibre based products, application (and import in LDCs) of Northern-based scientific management, technological advances in land management and market-friendly approaches are employed to "improve" the productive rates and forest attributes while securing reliable sources of timber.

Streams of environmentalism

In addition to Pepper's (1996) environmental continuum is Martínez-Alier's (2002) approach to categorizing and locating different forms of environmentalism, which helps us understand how individuals/social actors approach the goal of alleviating environmental degradation. Martínez-Alier (2002) breaks Western-originating environmentalism into three streams or "clusters": the 'cult of wilderness', the 'gospel of eco-efficiency' and the 'environmentalism of the poor', "which are as channels of a single river, branches of a big tree, or variations of the same crop" (p. 1). Whereas the third stream focuses on environmentalism in terms of a material interest in the environment as an essential source and requirement for the livelihood of many of today's poor people, the first two perspectives better organize and illustrate the forms of environmentalism employed in the Río Cóndor forest dispute in terms of protecting nature and in terms of exploiting nature in the most efficient way possible to ensure environmental protection and economic development.

The first stream relates to the environmental movement's perspective in terms of defending nature as the cult of wilderness, which is linked historically to the early conservation-based activities initiated by Americans John Muir and later Aldo Leopold with his famous contribution of the "Land Ethic" (Leopold, 1949). The objective of the cult of nature or "the love of old-growth forests and wild rivers" (Martínez-Alier, 2002, p. 1) does not critically analyze economic growth per se and instead accepts industrialism as the dominant form of organizing societies. Within this context, the objective is to preserve the remaining pristine spaces that have not been subject to the market system in industrial development. Conceptually, motivation to protect nature is influenced by aesthetic, religious or utilitarian arguments and is epistemologically based in the scientific reason of conservation biology and its focus on biodiversity. Philosophically, deep ecologists can be linked to this viewpoint with the cult of wilderness's biocentric perspective in contrast to the anthropocentric views commonly found in the Western world. This perspective is found within environmentalists' claims that the forests of the Tierra del Fuego are the "last forests at the end of the

world," and that the fragility, uniqueness, wildness, and scarcity of these forests demand their preservation. As discussed in Chapter 3, many of the environmentalists in Chile and elsewhere working to halt the Río Cóndor forest project never actually saw the forests they were working to protect, but felt that the forests were associated with natural patrimony, and as such, an almost frontier and mystical or magical perspective shaped their positions.

How the cult of wilderness perspective develops in general is theoretically explained by Inglehart's (1990) post-material framework, which argues that societal values shift from a material basis to an increased appreciation of nature as material needs are satisfied by societal development. Martínez-Alier argues against Inglehart's position by stating, "Western environmentalism grew in the 1970s not because the Western economies had reached a 'post-material' stage but, precisely the contrary, because of material concerns about increasing chemical pollution and nuclear risks (2002, p. 4). In other words, Inglehart's post-material perspective does not critically examine the ecological or social consequences associated with the rate or scale of natural resource use for economic development in society. The Chilean environmental movement better reflects Martínez-Alier's perspective, which illuminates the perspective of the Chilean state as upholding the belief that economic growth is required before they can seriously appreciate the importance of ecological protection.

Challenging the cult of wilderness perspective of preserving nature (or parts of it) is the 'gospel of eco-efficiency', embraced by Trillium and the Chilean state, which advocates for the efficient use of natural resources and conservation. This second stream of environmental thought moves beyond pristine areas exclusively and includes concerns surrounding industrial, agricultural and urban economy issues. It focuses on environmental and health impacts of industrial activities (e.g., agriculture) and urbanization. It addresses the whole economy and often advocates for economic growth with certain restrictions. It believes in sustainable development, ecological modernization and wise use of natural resources.

Whereas the cult of wilderness describes the biophysical world in terms of Nature, the gospel of eco-efficiency describes it in terms of natural resources, natural capital or environmental services. "It is concerned with the impacts of the production of commodities, and with the sustainable management of natural resources, and not so much with the loss of natural amenities or the loss of the intrinsic values of nature" (Martínez-Alier, 2002, p. 5). The loss of species or degradation of ecosystems are systemic indicators rather like a canary in a coalmine as opposed to those species or characteristics having agency in their own right. A common concept found in the gospel of eco-efficiency includes sustainable development, which is interpreted as sustainable economic growth and the search for 'win-win' solutions. Ecological modernization is popular with its mixing of environmental concerns with economic strategies, e.g., carbon

credits, eco-taxes, and technological ideas that promote environmentally friendly materials and energy saving measures.

Trillium's approach to the Río Cóndor forest project resembles the gospel of eco-efficiency. As explained in Chapter 4, an important rationale behind the development of the Río Cóndor Project was the decrease in available hardwood timber supplies because of past exploitative methods and increasing environmental pressures in tropical forests. Trillium's form of environmentalism employed the idea of sustainable development in the forests of Tierra del Fuego, which were perceived in terms of a scarce natural resource requiring efficient use to ensure sustainability for the eventual commodity: value-added lumber products. Embracing sustainable development where a 'win-win' scenario is achieved alleviates the enduring conflict between economic growth and environmental protection. Also explained in Chapter 4 is the challenge Trillium recognized in terms of how do societies in the world figure out how to manage forests for large-scale production in remote places where people need jobs and forests must be protected. Their objective focused on the pragmatic, production-oriented idea of exploiting the forests in a sustainable way as opposed to ensuring that the remaining hardwood timber supply sources are protected because of their intrinsic value or as a source of natural amenities. In addition, Trillium employed a successful independent scientific commission, headed by leading Chilean scientists to gather ecological data for the management objectives. Consequently, the inventory of ecological characteristics and attributes of the forests and surrounding landscapes on the property would be used not only to design the adaptive management strategy, but also to provide systemic indicators for monitoring ecological impacts during forest exploitation. Overall, Trillium's gospel of eco-efficiency approach to the Río Cóndor Project illuminates the perception of the forest in terms of natural resources available for large-scale production as opposed to having inherent value or being a source of natural amenities.

The third stream for Martínez-Alier (2002), and not particularly appropriate in examining the Río Cóndor forest dispute but important to note, is the 'environmentalism of the poor'. The third stream is concerned with the basic material interest in the environment, not in terms of rights of other species or of future generations, but as an essential source and requirement for the livelihood of many of today's poor people. The environmentalism of the poor is synonymous with "Liberation Ecology" (Peet & Watts, 1996) or livelihood ecology, environmental justice movement and popular environmentalism, which have at their theoretical core the identification of inevitable local, regional, national and global ecological distribution conflicts caused by economic growth and social inequalities. According to Martínez-Alier (2002), social actors demanding social justice have not often articulated the environmental idiom during conflicts and therefore the association between livelihood and environmental issues was rarely realized. The basis of this perspective is that "as the scale of the economy increases, more waste is produced, natural systems are

damaged, the rights of future generations are undermined, knowledge of plant genetic resources is lost, some groups of the present generation are deprived of access to environmental resources and services, and they endure a disproportionate amount of pollution" (Martínez-Alier, 2002, p. 12). New technologies are often prescribed to reduce or streamline energy and resource use in economy growth. Martínez-Alier argues that unexpected hazards or unintended consequences of new technologies often increase conflicts between economy and the environment.

In conclusion, environmentalism, an encompassing concept that includes a plethora of different philosophies and practices, can be understood in terms of categorizations in which the different social actors are situated within the continuum of ecocentric and technocentric forms of environmentalism and streams of a cult of wilderness and gospel of eco-efficiency. It is from within these categorical positions that we can begin to understand the process of contesting ideas of environmentalism (and sustainable development) and how it reveals different approaches to developing sustainable forestry in Chile.

Global Forestry

According to Marchak (1995), over the course of the world's history of forest intervention or destruction, the forest industry is a relatively recent contributor. With the inventions of mechanized logging techniques, mass-production and oriented sawmills, the modern forest industry took form in the late nineteenth century in the Northern Hemisphere. With a focus on coniferous forests for various low-valued wood-based products, a lucrative and large-scale industrial model of forestry was born. Important to the new industry was a low-cost and secure supply of land, labour and fibre sources to ensure profit for those companies that entered the industry. Initial markets of fibre products remained in the northern countries until the 1950s when new consumers emerged in Asia and Latin America. However, Japan's growing affluent population was increasing demand for paper (and other wood-based products), which soon became a significant incentive for forest companies to gain a lucrative position in this new market. Meanwhile, the cost of logging in the Northern Hemisphere was increasing due to a range of economic consequences such as an overall decline in softwood sources coupled with the emergence of plantation forestry, which fosters technological innovations from the North, to meet Japan and the world's demand for low-valued products such as pulp. Whereas the North had been historically the dominant low-valued fibre producer for the world, production shifted towards plantation forestry in the Southern hemisphere. The South offered comparative advantages of low labour costs and ideal climatic conditions for rapid timber growth rates. Plantation forestry is a relatively low-cost production system as compared to other forest operations, which, coupled with the South's labour and climatic advantages contributed to the global shift. The Southern hemisphere was becoming the leading source of low-valued fibre in the world.

However, even though the spatial location of fibre production shifted to the South, Marchak (1995) points out that the global restructuring of the forest industry is not unlike other industries that maintain a division of labour whereby the North provides technical skills and equipment while the South (or Chile for our case) provides forest lands and a source of labour. The consequence for Northern industry is the competitive need to accrue higher value out of timber sources if they plan to stay in the business, which cannot economically compete with plantations of exotic species such as eucalyptus (hardwood) or radiata pine (softwood). Regardless, while a new fibre source was emerging for the global forest industry, opposition to plantations was escalating as well. Various actors such as environmental groups, scientists and others have raised criticisms of plantations such as the fact that they consist of exotic species: Chile, for example, focused on pine (softwood) initially, but later incorporated eucalyptus (hardwood) to offset softwood market fluctuations. Other concerns raised include the fact that plantations are not forests; they are agricultural ventures that raise serious ecological concerns (e.g., loss of biodiversity, chemical pollution, soil degradation) and social concerns (e.g., indigenous people's displacement from their land).

Meanwhile, the issue of sustainable development arrived on international policy-making agendas initially at the Brundtland Commission in 1987 and later institutionalized as policy in Agenda 21 at the Earth Summit in 1992. The concept has since become accepted throughout the world by government institutions, Environmental Non-Government Organizations (ENGOs), and across industry; however, most often as 'green-washing' wherein the mantle of sustainability is donned, but economic or political objectives remain unchanged. For example, industry and state's often claim and devise management strategies such as sustainable yields, which appear to be balancing ecological, social and economic aspects, but instead maintain the priority in economic objectives while developing ways to incorporate, for example, ecological concerns, into their primary objectives. Included in 'green washing' is the adoption of ecological concepts and ideas, such as sustainable development, into industrial or corporate discourses, which in turn are hegemonized through public relation strategies that often involve the language along with images depicting, for example, vast forests and rivers containing thriving endemic species in harmony with environmentally friendly harvesting methods in contrast to their 'old' practices which completely disregarded ecological concerns.

At the time of the idea of sustainable development arriving, the global forest industry had only a small number of sustainable projects mainly in tropical forestry projects associated with universities and funded by environmental organizations (Jenkins & Smith, 1999). However, in the early 1990s, commercial ventures began to explore the option of sustainable forest management: "Commercial extinction of native forests, lack of adequate reforestation, conversion of forestlands to other uses, conflicting demands for forest resources, public opposition to logging, more stringent environmental regulations, and diminishing

supplies of wood became everyday business realities and forced industry to reconsider its norms and business strategies" (Jenkins & Smith, 1999, p. 3).

In addition, the actual quality of available timber is expected to decrease as secondary forests provide more uniform sources of fibre, but with smaller trees and possibly lower quality as opposed to previous old-growth timber (Jenkins & Smith, 1999). With a range of factors shifting the commercial forest industry's business practices, "environmental pressures, reacting with a variety of economic and market forces already at work on the industry, will rewrite the competitive ground rules for the global industry, alter world trade, and create new business opportunities over the next 20 years (Jenkins & Smith, 1999, p. 3).

An important social process in understanding why timber availability is diminishing and a key factor influencing the behaviour of forest companies in the ever-changing global forest industry is the role of private ownership of natural resources and short versus long-term financial objectives. Marchak (1988-89) explains how private ownership of natural resources does not necessarily lead to long-term investments in replenishing or conserving the resource they depend on for ensuring profit. This is based on the idea that private owners of, for example, forests will seek resource conservation because it is in their best interest to maintain a long-term source of timber to ensure perpetual accumulation of capital. In contrast, Marchak explains that private ownership in forestry activities is subject to a constantly changing world market where technological advances alter production processes, resource substitutions develop, or changes in cultural or consumer preferences occur making for a highly competitive market climate. Consequently, Marchak argues that short-term profits are expected behaviour of private property holders whereas long-term financial objectives are achieved not by investing in resource conservation measures, but instead within business strategies alleviating the challenge of diminishing profits, excessive production capacity and economic downturns. Forest companies instead focus on alternative business strategies, such as sustainable forestry, to ensure their competitive position within a constantly changing forest industry market.

Sustainable Forestry

Humans have intervened with forests for centuries. Whether as uncontrolled clearing for other uses of the land, such as agriculture or managing for commercial timber or pulp, deforestation has become synonymous with human intervention. Traditionally, management of natural resources such as forests has been shaped in instrumental terms, which assume a use-oriented approach and focuses on specific species or a narrow inclusion of non-timber values and characteristics of the ecosystem to ensure a sustained yield of timber supply. Aimed at a sustained yield of timber and founded on a belief in resource abundance, management objectives were able to satisfy private interests in accumulating profit as the main objective (WCFSD, 1999). On the ground, management of forests is often based on limited inclusion or recognition of

broader or more 'holistic' ecological characteristics such as biodiversity, species habitat, soil erosion or depletion.

With the global surge in environmental consciousness of forest destruction and the emergence of sustainable development, forest management shifted towards a broader-based strategy, which includes social and ecological elements incorporated into the economic framework. The new management approach includes a wider range of non-timber values such as tourism or botanical and medicinal properties, and more importantly, human rights issues of indigenous people. Ecologically, key concerns include biodiversity, species survival and conserving soil and water. Led predominately by scientists in the fields of silviculture and conservation biology, forest management is now recognizing the renewable resource of trees and land as finite if the rate or method of exploitation exceeds the biological limits or ecological resilience. Consequently, an approach recognizing a focus on ecological integrity and dynamics along with social and economic objectives (M'Gonigle & Parfitt, 1994) with a more holistic perspective that perceives timber as forests (Hammond, 1990) developed into the idea of sustainable forestry. Management strategies employed are often informed by ideas of ecosystem-based management[13] (Kohm & Franklin, 1997) while striving for "a balancing act" between the pragmatic user-oriented commercial-based forest industry and environmental issues (Kimmins, 1997).

As states, businesses, international organizations and institutions, and environmental NGOs embrace the idea of sustainable forest management institutionalized at the 1992 Earth Summit, the controversy continues to surround interpretation of the term sustainability. As discussed earlier, what is being sustained -- timber, profit, indigenous rights, biodiversity, species, ecosystems--and for whose benefit are central questions in much of the conflict in forest disputes throughout the world and in particular, the Río Cóndor Project in Chile. In Chile, sustainable forest development (SFD) has been defined by a concept that attempts to link social and ecological dimensions with the idea of conservation, which, as opposed to preservation does not discard economic use of ecosystems (Silva, 1997). Three components forming SFD are social equity, an economy of healthy growth and environmental protection (Silva, 1997). However, understanding how Chile came to embrace sustainable forestry development will offer us valuable insight into the importance of native forest exploitation throughout Chile's history and how the forests were perceived as obstacles to, or resources for development.

[13] Ecosystem-based management is a concept embodying earlier similar terms of "sustainable forestry", "biodiversity retention", "new perspectives in forestry" and "new forestry." Ecosystem-based management allows managers to deal with larger spatial scales, longer temporal frames and a range of variables, e.g., ecological, social and economic. (See Thomas in Kohm & Franklin, 1997).

The Case of Forestry in Chile

Deforestation historically in Latin America is attributed to a number of different reasons: colonization, settlement, agriculture, energy needs, and infrastructure development (e.g., roads, dams). While forests undergo a range of natural disturbances such as fire or earthquakes, human intervention has played a much greater role historically in degrading or destroying native forestlands. Before the arrival of the Conquistadores, indigenous people in Latin America cleared forests for agricultural purposes or for wood products and energy uses, but to a much lesser degree in comparison to the Spanish. Colonial control over the lands and indigenous people of Chile launched a history of accelerated native forest disturbance.

The Spanish burned native forests in Chile to expose hidden indigenous resistance groups such as the Mapuche, and after Conquest, some of the forests were cleared or burned for pasture and agricultural activities as well as for construction supplies and fuelwood (Neira et al., 2002). Neira et al. (2002) reference a 1996 study by the Comité Nacional pro Defensa de la Fauna y Flora (CODEFF, National Committee for the Defence of Flora and Fauna), which maintains that the next major forest disturbance occurred when native forests were converted to cropland and pasture. This occurred around the same time as Chile's Independence in 1818 and following the arrival of Europeans (e.g., Germans, Swiss, French, Italians) soon after with their frontier mentality of dominating and improving the lands for human needs with clearing forestland for agriculture and building supplies. For Sheppard (1999), this second major disturbance, which he distinguishes as occurring during the middle of the 19th century up until the 1950s as a period of "selective exploitation," meant that forests were exploited in a way that saw the removal of high quality trees for wood-based products, such as masts for naval ships. Since they selected the high-grade trees, the result was often degradation of forest composition and structure.

Throughout the Chilean history of native forest destruction, exploitation for fuelwood was a common pattern that offered energy sources for *campesinos* (peasants) or the many people excluded from ownership of land and driven to the urban centres for employment. For the people that chose to remain in the rural regions, forests were cleared for pasture or for fuelwood and building supplies (Wilcox, 1996). However, while native forestlands offered subsistence supplies for campesinos, they also fed the growing industrial appetite for a viable source of energy to fuel industrial plants (e.g., smelting) and residential homes in the urban regions (Wilcox, 1996). Therefore, while human intervention in native forests is arguably the most significant source of destruction, it is important to explore some of the socio-economic factors shaping this human intervention.

Next, Sheppard (1999) recognizes the "industrial period", from the 1950s to the present, as the era in which native forest destruction occurred at the highest level in Chile. Industrial logging includes wood chip harvesting and agricultural tree plantations for exploitation of low-valued wood-based products, and

substituting native forests. In particular, from 1965-74, the government began to factor a successful forest industry into Chile's overall development strategy of a priority national forest resource-extraction management strategy. According to Neira et al. (2002), 1974 marked the beginning of a national forest management strategy, which saw the reduction of government control in the forest sector. The government's role was reduced to the areas of control of forestry-related legislation, promotion of activities developed by the private sector and management of protected areas within the Sistema Nacional de Áreas Silvestres Protegidas del Estado (SNASPE, National System of State-Protected Forested Areas). The consequence of limiting the government's role in the forest sector was to increase privatization where the government's forest-related industrial capacity and forestlands were transferred to the private sector. In addition, a program of plantation forestry was launched, which also coincided with increased production in pulp or cellulose, which has since become an important export (Neira et al., 2002)

Plantation forestry emerged as a vital activity for economic development in Chile. The government encouraged replanting of exotic species on lands previously cleared of native forests, or upon other lands not otherwise deemed productive. Included in the government law promulgated in 1974 was Decree Law (DL) 701; which provided an important incentive of government subsidization up to 75% of the cost of developing plantations on non-native forestlands. The international market, and a global restructuring of the forest industry, as discussed earlier in the chapter, saw increased fibre production in Southern regions as opposed to the historical dominance in the North, and offered a very lucrative economic opportunity for Chile and its pathway to economic development. According to Carrere & Lohman (1996), plantations were established because they provide a feasible means of serving certain interests, namely economic interests, and offer a range of organizations (e.g., forest companies and government) new opportunities to ensure economic survival. In other words, according to Clapp (1995), DL 701 was a political tool used to inform industry leaders that forestry "was a regional growth sector, chosen with a few other selected areas of the economy to be guaranteed profitable" (p. 291). While the military government was seeking an opportunity in supplying a reliable and low-cost source of raw materials to the manufacturing industries in the North, subsidizing a secure source of timber-supply appealed to industrialists. Plantation forestry, as opposed to addressing ecological concerns (e.g., biodiversity) or ecological sustainability, is an example of ensuring economic certainty for sectors of society focused on forest exploitation as a means for economic development for both society and the sector's whose business it is to exploit the forests.[14] In addition, along with the arrival of industrial plantations in Chile came a forestry science known as silviculture. Originating from the North, which historically dominated fibre production fostered by MDC and LDC rates of

[14] Plantation forestry is said to offer a viable solution to addressing ecological concerns by alleviating pressure to exploit native forests but this idea remains open to debate in the Chilean context.

deforestation, silviculture exemplified the drive for better forest management and reliable sources of woodlands (Carrere & Lohman, 1996).

In addition, in 1975 in Chile the export ban on unprocessed or primary forest products was lifted, which broadened the industry's attention to converting or substituting native forests for wood chips beyond conversion into plantations. As a result, native forests became viable sources of wood chips or in some cases were out right replaced with plantations. Although the government favoured economic growth over ecological considerations, Supreme Decree 256 was proclaimed and required companies with private land to obtain a management plan from the Corporación Nacional Forestal (CONAF, Chile's National Forest Corporation) before native forest exploitation could begin, particularly since DL 701 was not intended for native forests. However, penalties for not abiding to the management plans were rarely enforced because of CONAF's limited resources, and fines were low compared to industry profits accrued (Marchak, 1995). Interestingly, Neira et al. (2002) indicate that the two most important causes of native forest destruction in Chile currently are selective logging and forest clearing, followed by substitution of exotic species.

Total areas of deforestation to date in Chile of native forests are difficult to measure, but approximate quantities range from 15-20 million hectares (Wilcox, 1996). According to Lara et al. (1999), in 1550, there were approximately 18.4 million hectares of forest from Regions 7-11. Just over half of the original forest remains today. The entire country's current forest cover, according to CONAF et al. (1999), is 15.6 million hectares, of which 13.4 million hectares are categorized as native forest. A preliminary report led by Marcel Claude released in 1995, then Director of Environmental Accounting in the Central Bank of Chile, examined the economic impacts on fisheries and native forests. The report was entitled, "The Chilean Environmental Accounts Project: Theoretical Framework and Results" and revealed that between 1985 and 1994, the area in Chile covered by original native forests was reduced from 7.5 million to 5.2 million hectares[15] (Claude & Pizarro, 1995). Consequently, the report questioned the production practices in the forest industry (and fisheries) at the time as well as government policy and predicted that at the current method of forest exploitation, within 20 to 30 years the country's native forests would be destroyed.

The ecological significance of these forests include their high biodiversity, storage of high amounts of carbon that contribute to global climate control, cycle nutrients and soil, purify water and that they are home to a range of species that provide important components for ecosystem resilience (Neira et al., 2002). However, while the native forest quantities in the past are not certain, we can safely conclude that

[15] The report generated tremendous controversy and backlash, particularly from the forest industry in Chile (i.e., CORMA) who responded with a government sponsored study, "Census and Evaluation of Chile's Native Vegetation" that claimed the amount of native forests had actually increased. The latter report raised debates around what constituted a native forest. Meanwhile, Marcel Claude was removed from his duties at the Central Bank of Chile after which time he founded the ENGO, Terram Foundation that works towards generating a proposal for sustainable development in Chile, see http://www.terram.cl/ retrieved on September 9, 2005.

substantial native forest destruction has occurred. As far as protection of native forest areas in Chile, the government's Sistema Nacional de Áreas Silvestres Protegidas del Estado (SNASPE, National System of State-Protected Forested Areas) estimates that 29% of total native forests are protected. However, the diversity of forest types endemic to Chile is poorly represented and the 29% does not include critical areas of native forest currently at risk of elimination (Neira et al., 2002).

Whereas plantation forestry is often understood in terms alleviating exploitation of native forests and offering a viable source of wood-fibre, they do not replicate a 'forest' in ecological terms but offer a useful analytical tool or window into understanding how members of society perceive the forests and what ideas are used to guide intervention. What we find is that the "value" of native forests change as markets change or perceptions of the forest change, as is the case in Chile's history of native forest destruction. What were once perceived as obstructions to, for example, colonial agricultural development, are now perceived as less productive or economically lucrative in comparison to plantation forestry -- that is, perceived within a narrow economic lens. In the end, quest for development in the form of removing, replacing or exploiting native forests has played an integral role in Chile's development. However, what is also evident in Chile's history of forest intervention is the role of social processes originating from outside Chile's national borders, as with the Spaniards in the 16th and 17th century and now more recently as Chile affirms its position in the global restructuring of the forest industry.

Conclusion

A Political Ecological perspectives enables us to begin our analysis of the Río Cóndor forest dispute in terms of understanding that societies, and human behaviour in general, influence the environment, whereas the "external" physical world in turn also influences human societies. Imperative in this relationship is the idea of ecological constraints, particularly with respect to our ideas and forms of intervention with the environment that often leave ecosystem dynamics and characteristics degraded or destroyed. The challenge is to develop ideas and strategies that guide our behaviour and that alleviate degradation/destruction by sustaining the ecosystems we depend on for biological and culturally defined needs or wants. In examining the ideas, social processes and developing solutions to alleviate our current zero-sum relationship with the environment has inspired the design of political ecological frameworks, which argue for broader-based examination and explanation of environmental issues that extend beyond narrow reasoning such as poverty or "backward" cultures. PE utilizes a political economy approach to understand how broader historical and contemporary political and economic social processes influence the context in which environmental problems develop in the first place. In addition, social movements throughout the

world, in particular environmental movements, have challenged the enduring conflict between economic growth and environmental protection.

As the global source of wood-fibre shifted during the 1980s from forests in the North to forest plantations in the South, softwood timber sources have been re-secured to feed the global appetite in forest-related products; hardwood sources on the other hand, were yet to be secured to supplying the current and developing consumer markets. A consequence of past destructive forest practices have contributed to motivating forest scientists and engineers to develop 'a new way of doing forestry' that fostered the spirit of sustainable development and offer a 'win-win' solution to the enduring conflict between economic growth and environmental protection. Countries throughout the world have embraced sustainable forestry, particularly since its institutional inauguration at the 1992 Earth Summit as *Agenda 21*. However, the challenge for all countries, and in particular Chile, is how can sustainable forestry be developed and which actors can develop sustainable forestry? While the Republic of Chile was institutionalizing their interpretation of sustainable development, the answer may have arrived in 1993 when Trillium Corporation, a private company from Bellingham, WA, US initiated plans for contributing to the goal of developing sustainable forestry by envisaging sustainable forestry as more than sustainable timber harvesting by including a commitment to socio-economic development. However, from the reading of the Río Cóndor forest dispute in the following chapters, it is important to question how much of the new sustainable forestry emphasis on ecological faculties is instrumentally motivated (e.g., to head off environmentalist opposition) as opposed to the company's new sensitivity to sustainable development as a new form of 'green washing' to ensure the perpetuation of economic objectives?

Chapter 3
The Political Ecological Context in Chile

Understanding the process of contesting adapted ideas of sustainable development and environmentalism by key social actors is the central focus of this thesis. To do so, we must also understand the historical and contemporary political ecological context, which informs both the evolution and eventual conflict surrounding the Río Cóndor forest project. In exploring this political ecological domain, I argue that history of Chile's colonial development and its recent political economic and environmental history illuminates both the state's adopted form of technocentric environmentalism and interpretation of sustainable development. In addition, the historical and current political ecological context also hinders the extent the Chilean state can employ, for example, initiatives for natural resource use and alleviating ecological degradation. While I do consider the state to be a key actor in this dispute, for this thesis, we will only explore its role in terms of analyzing state institutions and frameworks, like the law and judicial processes as salient context for the actions and initiatives employed by Trillium and the environmental movement. In addition, we will understand the necessary historical and political context in Chile to provide a history of land use, political participation, environmentalism and development in Chile. Lastly, I examine the level of environmental consciousness in Chile at various moments in time in relation to the Río Cóndor Project before moving into its evolution. but are mostly

'Development' Conceptions and Chile's Position in a Global Economy

Ferdinand Magellan was the first European to arrive in Chile in 1520 with the purpose of finding a Westerly passage to the Spice Islands. After sailing south from Buenos Aires, Magellan is believed to have made first contact with what have since become the southern reaches of the Republic of Chile. The passage he discovered, which he named the Strait of Magellan, later become an important route for circum-Pacific navigation until the Panama canal opened on August 14, 1914. Twenty years later, Spanish conquistadores under the command of Pedro de Valdivia embarked on the conquering of indigenous people -- signifying the beginning of conquest and colonization in what we call the Republic of Chile today.

The Spanish colonizers were motivated by their Catholic faith and the need to acquire natural resources, e.g., gold and silver, to raise capital for the monarch in Spain whose coffers were depleted by 500 years of Moorish occupation (Loveman, 2001). Chile's diverse environment and abundance of natural

resources offered great opportunities to colonizers and the monarch. For Loveman (2001), the arrival of Spanish colonizers meant the beginning of an ongoing process enmeshing Chile into the international economic and political system. The transformation of Chile saw the remapping of the political and social landscape through the imposition of social structures and stratification, land reform, modernization and state building. The transformation also meant remapping the environmental landscape as flora and fauna were altered by resource extraction, introduced species (e.g. grapes and cattle) and later, agro-export production, which became the backbone of Chile's economic development during the colonial period. In those days, ecological concerns did not resonate in the minds of European colonizers as illustrated by the Spaniards use-oriented instrumental and domineering perception of the biophysical domain as a source of exploitable resources for human needs. Exploiting the environment involved the burning of vast tracts of native forests for agricultural purposes, mining pits, and harvesting timber for fuelwood or building materials.

Chile's economy during the colonial period was based on agricultural products destined for Spain, where land in Chile was spatially and politically organized into *Latifundios* (large estates) for control over both the land and indigenous people (Oppenheim, 1999). The land was allocated to *encomenderos,* whereby encomenderos had control over both the land and its original inhabitants. The indigenous people were subject to forced labour, in addition to rape, promiscuity, and concubinage by their colonizers (Loveman, 2001). The system of stratification and the inequitable distribution of land that originated from the colonial period remains a feature of Chilean society today. While the intricacy of social stratification and land distribution has become more complicated, fundamental material realties faced by Chilean society have not changed. "History, in that sense, is not "passed" nor the past, but an ongoing presence in the present" (Loveman, 2001, p. 1).

Years later and following independence in 1818, Chile's political climate was stable compared to its neighbouring countries despite conflict surrounding the relationship between the state and Church (Oppenheim, 1999). Economically, Chile's economy remained export-oriented and focused on copper and silver mining. It was not until after Chile's victory in the War of the Pacific (1879-1883) over Bolivia, that Chile increased access to nitrate lands. This resulted in nitrate extraction surpassing copper and agriculture in value and thereby contributing to Chile's booming mining industry. During the 19th century, foreign direct investment flowed in from Europe, the US and Britain, where large industrial appetites for nitrate and copper helped to put Chile on the world map. As a result, the Chilean economy was further integrated into the

global economy as a source of primary products based on an export-oriented model and high foreign direct investment (Oppenheim, 1999)[16].

The early 20th century saw a shift to copper extraction, which surpassed nitrate production along with continued high levels of foreign investment from the US. At the same time, the social structure of Chile was changing as the export model benefited the growing middle class, domestic businessmen and industrialists (Oppenheim, 1999). However, the working class also began growing in size and militancy. According to Oppenheim (1999), the changes in the economy and social structures gave rise to a political crisis in the 1920s, when then-president Arturo Alessandri faced political turmoil as the ailing nitrate industry sent the economy downwards provoking increased worker militancy. These political challenges forced the government to reinstate stronger constitutional presidential powers in 1925 (with constitutional order restored in 1932) after they had been reduced at the end of the Civil War of 1891.

Chile's relatively stable and reformist representative political system between 1930 and 1973 did not, however, resolve social stratification and income disparities between the classes (Oppenheim, 1999). In addition, different development strategies framed distinct perspectives about how to organize society and achieve economic growth with social justice:

> On the one hand, there was an advocacy of structural reform, especially land reform and control over copper, an increased role of the state, and a shifting of resources and power toward the poor, either within capitalist framework or as part of a transition to socialism; on the other, a continuation of monetarist, free market, growth-oriented economic policies was advocated (Oppenheim, 1999, p. 22).

In response to considerable pressure by the US via the Alliance for Progress structural reform, such as land reform, was a strategy adopted by many countries of Latin America during the 1960s, and became the policies of the Eduardo Frei (1964-70) and Salvador Allende (1970-73) governments of Chile (Oppenheim, 1999). This period also gave hope to the many workers, peasants and urban poor that the state would employ measures to improve their social conditions that included exploitation, impoverishment, and exclusion from formal political channels. However, any hope for improved quality of life for the many workers, peasants or the urban poor was soon crushed on September 11, 1973 with the arrival of the coup

---

[16] The historic Chilean economic context was a primary model for the development of the dependency theory perspective, e.g., Andre Gunder Frank's book, *Capitalism and Underdevelopment in Latin America*, New York: Monthly Review Press, 1967, which examines capitalist development of underdevelopment in Chile and Brazil. The main argument in the Chilean context is that the state of underdevelopment is the result of centuries-long inclusion in the process of capitalist development. The Conquest of Chile both incorporated the country into the mercantile system, and later capitalist system, and situated Chile into the international level as a satellite nation to the world's leading metropolis nations (i.e., leading economic countries). The satellite nation is subordinate to the metropole countries, which extract resources and economic capital/surplus from satellite regions. Domestically, the capitalist system spread throughout Chilean society along with the formation of metropolis-satellite relations throughout the regions of the country. As a result, Chile has continued to face the challenge of overcoming the economic, social, and political structure of satellite underdevelopment. Simply put, the leading More Developed Countries or First-World countries were successful in "developing" and accumulating capital by siphoning natural resources from Third-World or Less Developed Countries.

d'état led by General Augusto Pinochet. Backing the military regime were capitalist interests within Chile, along with the United States government who directly supported (e.g., CIA-funded opposition groups to Allende's government) attempted to destabilize Chile's economy by denying loans and credits. With the military regime came severe political repression, a significant change in the role of the state, and a return to free market capitalism under the guise of modernity and progress. Political repression, torture, assassinations, and targeting cultural symbols such as internationally known writer/poet Pablo Neruda, were government methods used to achieve societal stability and a rapid adoption of the imported "Chicago School-inspired" neo-liberal economic policies. However, this form of capitalism was designed not just for the free flow of capital, but also the transformation of society's relationship with the state (Loveman, 2001).

Neo-liberalism arrived within economic and political discourse in the 1970s and early 1980s as a dominant economic paradigm to solve failing Keynesian economics[17]. After WWII, Keynesian economic policies were implemented in Latin America because of problems arising in relation to neo-classical economics such as an inability to develop national industries and protect citizens from global market fluctuations[18]. The development strategy introduced to alleviate Latin American countries' global dependency and market susceptibility was Import-Substitution Industrialization (ISI). ISI attempted to redirect the economy away from the previous agro-export model, which focused on a dependence on primary exports, and instead turned inwards in hopes of stimulating secondary manufacturing for domestic markets. The political objective of ISI was to decrease dependency on foreign markets, which results in vulnerability to fluctuating global market prices inherent with primary product exports (Green, 1995). It also

---

[17] Neo-liberalism, and its different degrees and forms, is a widespread economic and political strategy generally based on a rethinking of classical liberalism and the increasing internationalization and/or globalization of economics in the late 1970s. With its origin emerging out of the US and Britain, neo-liberalism also developed in response to the interconnected crisis of mixed economies and Keynesian welfare national States, which the latter in particular resulted in the rise of social movements in response to those latter two reasons, guided economies and development state in Eastern Asia, and the collapse of the Soviet Union (Jessop, 2002). Often described as a resurgence of classical liberalism, neo-liberalism seeks an unregulated market economy and minimal role of the State in society while promoting a value of individualism as citizens are motivated by self-interest. Neo-liberalism is skeptical of the welfare state and instead promotes privatization, deregulation and the encouragement of the market to 'manage' societal needs. However, in general terms, what makes neoliberalism unique from classical liberalism is found in the approach in which societies take in organizing to foster and perpetuate the current stage of capitalism. For instance, liberalism is understood, according to Jessop (2002), as a set of ideas for organizing capitalism in the early 20th century in response to social forces recognizing impediments and ultimately, to the logic of economic and political action during that particular period of the development of capitalism. Consequently, we can look at the shift to neoliberalism in terms of a response to capitalist social formations or a response to crisis-tendencies inherent within a particular stage and form of capitalism. Key to the development of neoliberalism then is the stage of capitalism in the 1970s, which was experiencing, for instance, increased internationalization or globalization where key social actors such as the trans-national companies and international financial institutions (e.g., International Monetary Fund) were developed to ensure the perpetuation of capitalist development (see Jessop, 2002, for more information on this topic).

[18] Keynesian economics offer a different set of ideas for organizing societies economically and politically. After the Great Depression of the 1930s and failure in neo-classical economics in ensuring market equilibrium and desired social conditions, governments moved towards taking an active role in the direction and control of the economy to balance the inevitable boom/bust cycles of a free-market economy and avoid mass unemployment. Neo-classical economic ideas were based on the belief that laissez-faire economics, with an unregulated economy, would achieve social conditions such as full employment in societies. Theorists such as John Maynard Keynes contributed to this new line of thinking by advocated for government intervention in the form of, for example, subsidization with strong public policy in a welfare state (see Brohman (1996) for further information of Keynesian economics and development theories)

attempted to absorb surplus labour and improve macroeconomic elements such as balancing import/export payments. In addition, industry was expected to create greater diversity in the economy through the development of forward and backward linkages (Brohman, 1996) and in many countries, state-owned enterprises were created to support and facilitate ISI by constructing appropriate infrastructures (Green, 1995). However, Green (1995) argues that the ISI was not successful in generating improved economic or social conditions and instead stimulated rural-urban migration. For example, the debt crisis in 1981-82 underscored how deeply the Mexican and Brazilian ISI-based economic miracles were flawed. With the ISI failing to meet economic and social demands in Latin America, including Chile, a neo-liberal strategy emerged as a potentially viable solution globally and made its official debut after the coup d'état in Chile on September 11, 1973.

The neo-liberal worldview and development strategy imposed in Chile by the military regime to achieve economic stabilization and political control was adopted from the ideas and work of Chicago school scholars, Milton Friedman, Arnold Harberger, and most notably, Frederick Hayek. For Chile, the adoption of a neo-liberal worldview is based on the ideological belief that a free market system is the basis for political liberty and a national security doctrine (Oppenheim, 1999). In regards to Chile's economic development strategy, neo-liberalism saw a move away from ISI strategies and a return to an export-oriented primary product strategy along with state subsidies in, for example, plantation forestry regeneration schemes. In addition, neo-liberalism in Chile saw a change in state-society relations, wherein a free reign of market forces by dismantling protectionism, e.g., tariffs, would foster capital accumulation and the trickle-down effect of wealth to the public:

> The worldview taught by the Chicago school began by accepting private property as sacrosanct. The state was to be non-interventionist and to allow market forces to dominate. Since the emphasis was on permitting the market to operate as freely as possible, there was to be a minimum of government regulation and maximal privatization. This view was not solely an economic one; the concepts of privatization and reduced state intervention through deregulation could also be applied to the organization of society in general (Oppenheim, 1999, p. 141).

The debt crisis of 1982 and structural adjustment policies resulted in massive privatization and continued foreign direct investment during the military regime, which translated into increased decision-making over the Chilean economy being made by international institutions such as the International Monetary Fund (IMF) and World Bank who determine investment, loans and structural adjustment policies. Consequently, increasingly important decisions of macroeconomics were left in the hands of institutions that operated beyond the elected representatives of Chile.

Chile has had one of the more politically stable countries in history in relation to its neighbouring states. It has experienced a relatively democratic constitutional political system, but not without expressions of political and social dissent. Sources of conflict emerged over a number of different issues such as rural land access and distribution, regional versus centralized governance, class-based conflicts, the role of the church in governance during the 19th century, gender inequality and, conceptually speaking, competing ideologies such as liberalism, communism and socialism offering different pathways for development. Despite a relatively stable political institutional record, the underlying social stratification greatly influenced people's behaviour and decisions to challenge the exploitative and exclusionary consequences of economic growth.

Oppenheim (1999) links economic conditions with political circumstances to explain the history and context of Chilean politics. She argues that development strategies play a significant role in embodying political and social conflict from the early stages of independence, as particularly evident in the Allende (1970-73) and military regime (1973-90) periods. The social stratification and entrenched export-oriented development model laid the material conditions contributing to social conflict in society. As a result, Chile's history exhibits different periods in which different groups within society challenge those with power, but conflict was often channelled through electoral and institutionalized processes (Oppenheim, 1999). In addition, a strong state was believed to be the mechanism to achieve political stability, economic growth, and social equity until the coup d'état in 1973. However, what is evident in Chilean society during the post-military era and 'transition to democracy' is a form of democracy and state responsibility that unloads social equity objectives onto the individual as opposed to its historical role in Chile when the state's mandate included employing measures to achieve social equity along with economic development.

Movements of Dissent

Latin American history consists of discordant shifts between authoritarian and democratic rule. Although this pattern represents Latin America overall, specific countries have experienced, for example, different levels of economic and development wealth, unionization, and levels of industrialization. The post-Cold War era (latter 1980s onwards) has been a period of strategic change for the Left in Latin America (Castañeda, 1993). The political and economic context during this period is important for both partisan groups and social movements. A key shift occurred in partisan groups, e.g., within the Socialist Party, towards a focus on 'democracy' as the means to political change rather than on militant means and Marxist perspectives of societal transformation. "The view of democracy as an illusion or an instrument for the pursuit of other objectives yielded gradually to an insistence on the integral character of democracy for the

transformative project of the Left" (Roberts, 1998, p. 19). In Chile, this was associated with the integration of the Left into electoral democracy or traditional political institutions in the early 1980s.

Consequently, the Left adjusted their political strategies away from viewing the state as an instrument for revolution and instead perceived embracing the state and democracy as a means for increased political participation and representation. In particular, the reconceptualization involved a move away from socialist or revolutionary objectives toward adopting a pluralistic national project. This new political strategy included broadening its membership to include neighbourhood and other grassroots organizations, and sought to utilize the traditional political institutions as the vehicle for social transformation. In terms of democracy, Roberts (1998) explains two different perceptions of what democracy meant: 1) a process of popular empowerment; or 2) framing democracy in terms of an institutional framework fostering social and political pluralism. Democracy in the latter context is similar to a European style which is based on a set of 'conflict-regulating mechanisms' to foster a diversity of political perspectives (Roberts, 1998). Democracy in Chile is described best in terms of the second description, but the military dictatorship (1973-1990) abolished this way of organizing society and consequently became a key period in Chilean history and particularly for social movements and the Río Cóndor forest dispute.

Social movements or acts of dissent are not a new phenomenon in Chilean history. The early 20th century saw increasing labour unions in the mining industry active in strikes and protests in association with political parties employing single-issue counter-hegemonic strategies against capital. However, social movements were most active in the 1960s and the early 1970s, and consisting of a range of societal groups operating on a variety of rationales such as the land seizures (e.g., *población* [shantytown]) La Bandera in Santiago) by low-income people demanding affordable housing (Paley, 2001). In addition, there was the "popular socialism" movement leading up to Allende's election in 1970 and the counter-movements during his brief presidential stay, which included mobilization by the middle-class protesting his controversial land reform measures favouring lower/working class. The military regime provoked the most notable collective action protesting a wider range of issues such as deteriorating living conditions and human rights violations by the military regime, particularly since 1983 when the government faced economic slowdown and became more vulnerable to public criticism (Garretón, 2001). For example, the Sindicato Inter-industrial de Trabajadores Estacionales y Permanentes de Santa María o Movimiento de Trabajadores Estacionales y Permanentes (Inter-industry Union of Seasonal and Permanent Workers of Santa Maria or Seasonal and Permanent Workers' Movement) developed out of conditions found within capitalist agricultural development during the 1970s and 1980s, where they expanded the breadth of counter-hegemonic activities by focusing on issues related to gender politics (e.g., power and authority in family, local firms and organizations; gendered division of labour, challenging the "natural" characterization of being a female; and control over

reproduction and sexuality) and sought more egalitarian gender ideology in the workplace and throughout the rest of society (Stephen, 1997). In addition, the period of the military regime also witnessed neighbourhood movements replacing union protests as workers subject to increased unemployment rates under the military regime joined with urban movements because it was more difficult for the military to control mass groupings. Overall, social movements in Chile have evolved since the early 20th century from a single-issue force linked to traditional political institutions into non-institutionalized local and/or multi-issue alliances, which may or may not be broadly counter-hegemonic.

The military dictatorship was indeed a dark period in the history of Chile when severe measures were implemented for political repression and economic retrenchment to regain political control and economic stabilization allegedly caused by the previous Allende government (Loveman, 2001). Allende's Unidad Popular (UP, Popular Unity) lead Congress launched economic strategies designed to stimulate economic growth and to distribute wealth/resources to poorer sectors of society via measures that included increasing workers' wages, price fixing basic goods for workers, nationalizing the copper industry and agrarian reform to redistribute land to peasants (Loveman, 2001). Allende's government was limited in state power, since the UP began its tenure with only 42% control of Congress. Consequently, political opposition strengthened within the state during the following three years in response to ideological differences (i.e., opposition against socialist ideas of organizing society) and the economic measures implemented, which resulted in revenue shortfalls in state-run industries and rising inflation (Oppenheim, 1999). It was not a question whether a coup d'état was likely to occur as a result of the politically polarized landscape in Chile in 1973, the question was to what degree or how violent and repressive an inevitable coup d'état would become in its attempt to resolve the political deadlock between social democratic and free-market capitalist ideas of organizing society.

In 1973, General Augusto Pinochet lead the military in a coup d'état and consequently changed the face of Chilean society by restoring economic control with free-market monetarist measures and political control by employing violence to eliminate collective identities, actions and organizations (Garretón, 2001). To achieve economic stabilization, the military regime imposed measures based on the promotion of free-market capitalism to control inflation, increase trade and foster a climate conducive to economic growth by reducing government-imposed over-regulation and industry protectionism, which included increases in the price of goods, cutting public spending and privatizing public enterprises. Political control was created by an intolerance for political dissent or the freedom to politically organize. Torture, massive disappearances, and the assassination of thousands of people linked to the Allende government and/or Marxist ideology sent a clear message of terror throughout Chilean society as to what were tolerable ideas, ideologies or behaviour under Pinochet's rule.

The fear constructed by the state prompted an exodus of Chilean dissidents including politicians, academics, and other professions whose ideas or ideologies (e.g., Marxist sympathizers) opposed those of the military government. The military also destroyed 'subversive' literature, censored the media, banned popular songs, confiscated popular sculptures and paintings, closed the legislature and created a secret police force in addition to establishing neo-liberal monetary and fiscal policies in the economy (Loveman, 2001). For social movements and environmental organizations in Chile, Pinochet's reign of terror over political dissent significantly limited opportunities to organize or engage in political action. However, while the military regime weakened and atomized the capacities of social [and environmental] organizations, Garretón (2001) argues that civil society reconfigured itself in response to the military force and formed what he calls the "invisible transition to democracy" (p. 260). Included in this invisible transition to democracy were urban mass social movements associated with the Catholic Church, women's groups, students, and other social and cultural groups successfully mobilizing for subsistence needs and human rights as opposed to the visible transition, which consisted of institutional measures that were designed to end the military rule (Garretón, 2001). Interestingly, while Pinochet transformed the economic landscape into an export-driven free-market economy based on private and foreign investment, protection of private property rights and the creation of an independent Central Bank, the impacts on subsistence needs and human rights violations provoked collective action, which became a powerful opposition and threat to Pinochet's military regime by the early 1980s. In addition, as the movements saw their mobilization become an effective means to overthrow the dictatorship and return to a democracy in Chile, international pressure also began to raise concerns about both the emerging social conflict itself and the economic downturn during the military regime in the early 1980s. Powerful international forces and the Chilean business sector pushed for a transition to democracy to ward off social unrest while maintaining the neo-liberal economic model.

The transition from military rule to electoral democracy occurred in 1990 when President Aylwin became the first elected President since 1970. However, the transition to democracy presents new challenges and a political landscape for social movements and democracy in general. For instance, Roberts (1998) argues that the democracy that arrived in Chile's post-dictatorship has not become as "deep" as anticipated due to neo-liberalism as both "a cause and consequence of the fragmentation and weakening of popular collective action" (p.12). Paley (2001) argues that what has occurred in Chile is in fact a paradox where instead of new spaces of democracy forming, contemporary democratic spaces consist of a reduction in social interaction and political activities, and consequently, a decline in collective action. Elected political elites, or "anonymous bureaucrats and faceless technocrats," were in place to deal with political issues on behalf of civil society (Paley, 2001, p. 92). Meanwhile, as the transition to democracy unfolds, the role of the state remains limited in its responsibility to issues of social equity or environmental issues for example, and fosters instead a political framework in which neo-liberal ideas play a significant role in managing society.

For example, environmental organizations in Chile since 1990 are afforded the freedom to organize and publicly criticize the government's handling of environmental issues, but funding to realize their objectives remains the organization's responsibility as opposed to having access to state subsidies. In addition, inherent in this new democracy since 1990, is the characterization that involves "marketing democracy" where realizing democracy is linked to free market economics and regarded as a positive value in society. In addition, important to this form of democratizing Chilean society is the solicitation of people's opinions to give the illusion that people are included in policy decision-making (Paley, 2001). Overall, elitism and bureaucracy dominate the state that has continued to embrace neo-liberal ideas in organizing society and consequently sustains a minimal role in fostering social equality. While the shift to democracy is heralded as a positive direction especially compared to the brutal human atrocities under the guise of "development" during the military regime, neoliberalism was not only the cause of social conflict and mobilization during the military regime, but also, in the 1990s, ironically appears to have impeded the influence of collective action in Chilean society.

In addition, the military regime's attempt at censoring and controlling knowledge and awareness of the 1973-1990 brutal dictatorship proved successful. In the documentary, *Chile: Obstinate Memory*, Chilean film director, Patricio Guzman (1998) reveals how the generation following the Pinochet era are nearly oblivious of Chile's history between 1973 and 1990. The sense of fear and terror coupled with absolute control and censorship over the dissemination and content of information during military rule has left a generation ignorant of the brutality of an inexcusable and unforgettable period in Chilean history. For the environmental movement in Chile, many of the key leaders/members experienced first hand the military regime and shared personal accounts of living in a state of fear and oppression. For the environmental movement and their opposition to the Río Cóndor Project, the ignorance of the generation following the military regime did not surface in our conversations, but the reality of testing the degree in which they could 'voice' criticism particularly through media outlets or public spaces certainly did as explained in Chapter 5.

In addition to the lack of awareness of the military regime's role in Chilean history, the level of public environmental knowledge is questionable. However, before we can address that issue, which is important to understand how people in Chile may have perceived the Río Cóndor forest dispute, we must first turn our attention to the history of environmentalism in Chile. We will examine the history of environmentalism in terms of how ideas pertaining to environmental issues have been articulated in Chilean society, and in particular, we will look at the role of the state in institutionalizing initiatives; thereby revealing their technocentric approach to sustainable development. Chapter 5 will examine in more detail how the environmental movement operates outside of, and in some cases in relation to political parties whose institutional departments are responsible for natural resource policy-making and environmental protection.

History of Environmentalism in Chile

Literature on environmental history in Chile is limited, despite Chile's leadership in addressing environmental issues within academic, institutional and the legal sectors of society. According to Camus & Hajek's (1998) historical analysis from 1964 through 1994, environmental efforts and measures have been erratic and inconsistent. Environmental degradation associated with a historical economic development strategy of natural resource exploitation coupled with a high level of urbanization have fostered activities in academia, the state, and the formation of ENGOs. From the early 1960s, scientists initiated various quantitative studies in ecology and examined both the use and management of natural resources and their degradation. In addition, different ENGOs emerged such as the Comité Nacional Pro Defensa de la Fauna y Flora (CODEFF, Committee for the Defence of the Flora and Fauna of Chile) founded in 1968 and an important book was, according to Camus & Hayek (1998) published entitled, *La Supervivenica de Chile*, by Rafael Elizalde in 1970, which examined the historical process of natural resource destruction. The government created various organizations through the Corporación de Fomento de la Producción (CORFO, Corporation for Promoting Production) to assist in stimulating industrialization for national economic development. Internationally, Chile's institutional environmental consciousness was influenced by different conventions such as the Conference of the United Nations for the Human Environment in Stockholm, 1972, but, according to Camus & Hajek (1998), the government channelled their energies and attention into the United Nations Conference on Trade and Development (UNCTAD) instead of the Stockholm Convention. For instance, in 1973, the Corporación Nacional Forestal (CONAF, National Forest Corporation or Chilean National Forest Service), a state agency of the Ministry of Agriculture, was given responsibility of administering the forest policy of Chile and contributing to the development of the sector. CONAF's objective, according to President Salvador Allende, was "to contribute to the conservation, increase use and treatment of the forest resources of the country" (CONAF, 2005).

The next period in which Camus & Hajek (1998) examine is the military regime from 1973-1990. The concept of sustainable development gained attention at the international level as well as within different sectors of Chilean society. The 17 years of social and political repression attached to a strong commitment to neo-liberal, free market economic policies also coincided with some institutional environmental measures. For example, internationally, the military government committed to the Ozone Layer Convention of 1985 and the CFC (Chlorofluorocarbons) Control Convention of 1987. A large hole in the ozone layer exists over the southern reaches of Chile, mostly in Antarctica. However, according to Silva (1996), the government's motivation to combat CFC emissions came from increasing international awareness of the military regime's repressive reputation, and the awareness that as a developing nation, immediate compliance was not required nor was the government expecting the necessary technology transfer to operationalize the

necessary procedures. At the national level, Article 19, No 8 of the Constitution (1980) was created assuring all individuals the right to live in an environment free of pollution. In addition, a range of national and international legal initiatives and agreements were enacted such as the Sistema Nacional de Áreas Silvestres Protegidas del Estado (SNASPE, National System of State-Protected Forested Areas) in 1984.

Meanwhile, Camus & Hajek (1998) explain that the academic community and additional ENGOs such as the Instituto Ecología (Ecology Institute) established in 1974, continued to raise public awareness of the nation's environmental issues. For example, the Centro de Investigación y Planificación del Medio Ambiente (CIPMA, Centre for Investigation and Planning of the Environment) was formed to raise environmental consciousness in Chile and bring the topics of natural resources, environment and quality of life in relation to present and future generations into public discourse. Its key objective is to link environmental concerns with economic development in Chile. An important accomplishment by CIPMA was the organization of the first Scientific Congress for the Environment. This organization brought 377 scientists and academics together to assess Chile's environmental problems and offer policy alternatives (Silva, 1996). General Pinochet responded in 1984 with the creation of the Comisión Nacional de Ecología (CONADE, National Commission of Ecology - precursor to CONAMA) to advise the President on issues concerning the protection of environment, conservation of renewable natural resources and the creation of a national environmental policy. However, according to Rojas (1994), the commission remained ineffective despite conscientious and capable people working for it. The lack of political power will likely prevented the commission's efforts from being realized.

As many bureaucratized state apparatuses can attest, change in power and jurisdictional responsibilities is often met with some resistance. Important to modern environmentalism in Chile is the period between 1990 and 1994 when ENGO and scientific/academic actors moved beyond diagnosis and criticism and into political action (Camus & Hajek, 1998). However, Chilean civil society alone cannot be credited for significant environmental changes in the country. As evident in the Río Cóndor Project context, the Trillium Corporation presented Chile with an opportunity to move towards sustainable forestry in the native forests. Environmental pressure comes from many different sources within and beyond the sovereign borders of the Republic of Chile. As a result, the Chilean government has responded to pressures to 'green' the state by taking various initiatives such as continuing to participate in international conventions and agreements, but also commit, legally, to achieving sustainability in their natural resource-based industrial sectors beyond that of forestry.

The 'Greening' of the Post-1990 State

The political system currently in Chile is a presidential system of government and consists of three independent branches: executive branch, legislative branch, and judicial branch (civil law system). The president heads the executive branch and is responsible for maintaining public order and the security of the sovereign Republic. The legislature, known as the Nation Congress, is composed of Chamber of Deputies and Senators. The National Congress was dissolved during the coup d'état in September 1973 and reinstated in March 11, 1990. There are 120 deputies elected by popular vote from 60 districts and 38 Senators elected in 19 districts. For each district and region, slates of two candidates are presented from the political parties or alliances of parties. The newly elected deputy is determined by identifying the candidate with a plurality of the votes. A slate can win both seats in a district only if the leading slate receives twice as many votes as the runner-up[19].

Centralized administration has formed the historical and contemporary design for governance in Chile. The political landscape was remapped during the military government, which divided the nation into 12 regions in addition to the metropolitan region of Santiago. The governing body was relocated to Presidential Palace of Cerro Castillo on the coast in Valparaiso during the military regime, but returned to La Moneda (Presidential Palace in Santiago) in 1990. The 12 regions are headed by *intendentes* (Intendents) appointed by the president and within each region, there are provinces headed by *gobernadores* (Provincial Governor). Below the provincial governors are mayors, who are responsible for municipal jurisdictions known as comunes and who are elected by their constituency. Despite efforts to decentralize governing bodies in 1990, the flow of power exists today from the metropolis to the satellites with administrative power originating from Santiago as opposed to the satellite regions having political autonomy. In other words, the intendents, governors, and certain lower level officials are appointed by and represent the president in their respected jurisdictions not their constituency.

The political and economic contexts of Chile's history influenced the formation of social stratification in Chilean society and, particularly during the military rule, the emergence of powerful social movements as explained above. Included in these predominantly urban-based social movements were environmental concerns, such as air and water quality issues. Institutionally, the government from 1964 has attempted to address environmental issues but overall, their efforts have been described as erratic and sparse. However, when the military regime was replaced by the democratically elected Concertación de Partidos por la Democracia (Harmony of Parties for Democracy -- Concertación hereafter), addressing environmental issues become an important order of business for the new government. The environmental

[19] For more information on the elector process, see http://www.chileangovernment.cl/index.php?option=com_content&task=view&id=60&Itemid=36. (Retrieved December 22, 2005)

framework law 19,300 was promulgated in 1994 (whereas the regulatory framework to enforce the law does not arrive until 1997) to appease mounting environmental pressures both from opposition groups during the Pinochet period and outside of Chile's borders from international sources eager to integrate Latin America into commercial treaties (Sheppard, 1999).

Environmental Law 19,300 Arrives

Chile's environmental record leading up to 1994 and the arrival of Ley de Bases Generales del Medio Ambiente (Ley Marco, Environmental Framework Law 19,300) was far from respectable. Even though Chile had institutionalized attempts at reducing forest destruction such as plantation projects aimed at recovering transformed native forest lands, and more recently committing to sustainable development in 1992, the government was constrained in their options for alleviating degradation since they were limited in legislative and institutional power. The emergence of an environmental law was not attributed solely to the government's poor history in addressing environmental issues, but also to international pressures in the form of international trade agreements and treaties (Sheppard, 1999).

By the end of the 1980s, increased awareness and pressure from civil society (e.g. ENGOs and media) influenced the ideas of the new democratic government of the Concertación led by President Aylwin (1990-94). Government members recognized that General Pinochet's economic model, while successful in achieving economic growth, was detrimental to the environment despite the existence of the National Ecology Commission. The government understood that in order to foster a coherent and effective environmental policy, the dispersed laws and institutions with various environmental responsibilities would have to be consolidated to ensure an effective coordinating body. As a result, and without critiquing the economic model itself, the Concertación government introduced the Ley Marco (Environmental Framework Law) to Congress in 1993, which later became Law 19,300 in 1994 and was institutionally embodied by the Comisión Nacional del Medio Ambiente (CONAMA, National Commission of the Environment). This law extended the state's responsibility from guaranteeing the "right to live in an environment free of contamination" from the 1980 Constitution to protecting the natural resources and natural heritage of Chile[20].

However, the Chilean government limited the institutional power of CONAMA by not granting it high-level political autonomy. The Commission has impressive technical expertise, but does not have the same power awarded to Ministries in the government. CONAMA was created out of an inter-ministerial committee, which integrated the Ministries of Health, Economy, Agriculture, Mining, Housing and Transport whose jurisdictions cover environmental issues. CONAMA reports to the Ministro Secretario General de la

[20] See Chapter 5 for discussion of the 1980 Constitution in relation to the Río Cóndor forest dispute.

Presidencia (SEGPRES, Ministry Secretary General of the Presidency) -- the minister who heads the SEGPRES is also the director of CONAMA. The key responsibility of the Commission is to evaluate potential adverse effects or risks of large-scale land use projects such as mining or forestry through a system of evaluation known as the Sistema de Evaluación de Impacto Ambiental (SEIA, System of Environmental Impact Evaluation). For the forest industry, projects involved in "development or forest exploitation projects in fragile soils or in terrain covered by native forests, paper industries, wood-chip plants, and sawmills" must enter the SEIA process (CONAMA, 2002, p. 15). In addition, projects proposed in Region 12 (i.e., Tierra del Fuego), and intending to harvest more than 1000 ha/year are required by law to submit an environmental impact assessment study (CONAMA, 2002). CONAMA also consists of decentralized regional bodies, Comisión Regional del Medio Ambiente, (COREMA, Regional Environmental Commission) throughout the 12 regions of the country, which are lead by the regional directorate.

For Silva (1996) the structure of CONAMA means that the business community has access to a close working relationship with it and that the values of the status quo are upheld. In addition, Silva (1996) explains that Ley Marco was based on four principles: prevention, the polluter pays, gradualism and participation and the key regulatory mechanism of the law in preventing environmental degradation is the Evaluación de Impacto Ambiental (EIA, Environmental Impact Assessment). The EIA was not only designed to evaluate environmental impacts of large-scale projects, but also to gather ecological data, which the government lacked and required to control environmental impacts of projects (Silva, 1996). In addition, the cost of the EIA would rest solely on the shoulders of the national or foreign companies requiring EIA approval (Silva, 1996). Thus, the EIA is an important regulatory instrument in fostering sustainability with respect to natural resource use in Chile.

However, in Chile, as in many Latin American countries, environmental protection is quite impressive on paper, but rarely fully translated into practice because of insufficient resources to monitor and enforce, corruption and clientalism, and perhaps most important, lack of real political will. What is important to recognize then is the emergence of different sources of political pressure, such as collective action or international trade agreements, which shape and reshape Chile's institutional landscape governing nature. Despite institutional measures designed to alleviate environmental degradation, the economic model continues to drive Chile towards economic development at the expense of ecological protection. However, before we delve into the Río Cóndor forest dispute and identify where this project fits within the often discordant tug-of-war between economic development and environmental protection, let us first turn towards developing a general sense of people's awareness of ecological issues in Chile at the time of the proposal of the project and since its termination.

Environmental Consciousness and the Río Cóndor Project

As far as a public perspective on the Río Cóndor Project in general, I found the perspective of Manuel González, Director of the main newspaper in Punta Arenas, La Prensa Austral summarized it best:

> We as the press – and I am going to speak of La Prensa Austral (LPA) – LPA viewed the arrival of this project positively primarily because of the possibility of creating a source of employment and at the same time driving forward a productive project with certain sustainability criteria. This was a great opportunity. It seemed like a great opportunity in which it was possible to offer employment, export a quality product, and bring development to the Tierra del Fuego province, because in fact the project would involve building homes, roads and a dock, that is, all the infrastructure necessary to progress in the entire area. In any case, our position as a newspaper was that the sustainability of the forest be respected, that is that the exploitation be carried out in compliance with Chilean regulations and the requirements mandated by the governing authority, which was the Regional Commission on the Environment (COREMA). *Manuel González, Director of La Prensa Austral, January 31, 2006.*

The Río Cóndor Project offered the opportunity for socio-economic development in Magallanes and as long as the project met with the state's regulatory framework ensuring sustainability, the project was embraced in positive terms by many people in Chile. However, what exactly was the level of environmental consciousness in Chile at the time of the arrival and cessation of the project, particularly since much of the forest dispute surrounded the ecological integrity as opposed to the socio-economic?

In the community of Porvenir, Tierra del Fuego, (see Figure 2, Chapter 1 for map) the assessment of environmental consciousness of people is explained in terms of having limited knowledge of forest ecosystems before the arrival of the Río Cóndor Project and remaining limited today. "Here people still don't know much about what a forest is: even after this project happened, the people still didn't get informed about anything" *Marta Soto Andrade, Community Leader in Porvenir, Porvenir, Tierra del Fuego, March 3, 2004.* Teodoro Valdebenito Riquelme, Community Leader, Porvenir, Tierra del Fuego, reveals his perspective on environmental consciousness throughout Chile and internationally:

> And the other thing that I think really made a difference here is that there is not any kind of environmental awareness, and this can be said about all of Chile, that is, not only have they committed atrocities here in Tierra del Fuego, but along the entire length of Chile and there is no environmental awareness in the communities, in students, and even less so among senior citizens. There isn't any in general, because in other places an environmental awareness has been created, in other countries because they have stopped the big destructive [projects], in Canada, for example. Here you ask people about the forests and they could care less, they don't have any idea what a temperate rainforest is, what a thousand-year old forest is, they don't even know what an [sub]-Antarctic forest is. *Teodoro Valdebenito Riquelme, Community Leader, Porvenir, Tierra del Fuego, March 3, 2004.*

From a different point of view, the level of environmental consciousness within the Chilean public remains limited today despite an effective environmental movement and the specific impact of the Río Cóndor Project:

> A lot of Chileans that do have a good understanding of that [environmental issues] and the environment is gaining in strength, and Chile has the strongest environmental movements of any country in Latin America, which is why this project [Río Cóndor Project] has been stalled. But the majority of people in Chile don't have an ecological conscience, they don't have an eco-awareness...They don't really understand it. And that's especially so for the politicians, all these politicians, it's a very small minority of politicians that stick up for environmental issues. Really, the mindset here is that development is the most important thing, more important than anything else. *Jimmy Langman, Freelance Journalist, Santiago, October 10, 2003.*

Interestingly, according to Jimmy Langman, a freelance journalist who has covered environmental, political, economic and social issues in Chile (and Latin America in general) since 1998, environmental issues in Chile remain a lower priority than development objectives -- despite Chile's commitment to the 1992 Earth Summit declaration for sustainable development, the environmental law (Law 19,300) and membership in various other international agreements and conventions. Langman explains in more detail politicians' approach to environmental problems:

> Chileans [politicians] want, really they want a free market approach to solving environmental problems and they want a business-friendly approach. They don't like a lot of regulations. They want, instead of a stick, they want a carrot; they want incentives. They want compromise. Trillium was trying to compromise so they saw Trillium as being reasonable and environmentalists as being extremists, that is how it was painted. *Jimmy Langman, Freelance Journalist, Santiago, October 10, 2003.*

Chile's approach to environmental problems resembles that of many other countries, especially in Northern nations, which foster technocentric, eco-efficient criteria towards environmental management and alleviating degradation. As such, while Langman's opinion illuminates the level of environmental consciousness within the Chilean government, it is important to remember there are particular forms of environmentalism and corresponding types of initiatives available. The government's market-oriented approach to mitigating environmental issues becomes particularly problematic considering that Chile's primary, export-oriented satellite economy position in the global economy limits their options. The Chilean government is not autonomous in their choices of environmental approaches to managing natural resources in Chile. For example, international trade agreements have played a significant role in shaping the environmental awareness of political leaders and institutions responsible for natural resource use:

> Now going back a bit, this growth in environmental awareness also has its foundation in the international agreements that Chile has signed onto because of the free trade agreements. These FTAs (Free Trade Agreements), especially the FTA with Canada,

> which has an attachment to the American Free Trade Agreement, has a complementary agreement that is called the "Agreement of Environmental Cooperation Chile-Canada." A free trade agreement with Canada, countries that have environmental standards much more elevated than Chile, has meant that since we are essentially sellers to those countries, we [Chileans] don't have to comply with our [own] internal environmental standards, because they don't mean anything to Canadians, Americans and Europeans. What they care about is that the products that we sell to them comply with their environmental standards. That is, they don't care about environmental standards because of a love of nature, but because otherwise they can't sell. *Fernando Dougnac, President of Fiscalia del Medio Ambiente (FIMA)- Chile's Environmental Public Prosecutor Office and lawyer for Pro-defense of the Environment, Santiago, November 25, 2003.*

International trade agreements, in regards to their environmental sidebars, influence and are shaped by the relations between a buyer and a supplier. In the case of Chile, which is dependant on exporting low-valued natural resources for economic growth, they are the supplier. This means Chile must abide to environmental standards originating in the North if they want to export their products. Environmental standards or expectations pertaining to, for example, sustainable forestry practices in Northern societies guide, and in turn inform Chilean business leaders or politicians as to what are appropriate forms of human intervention in the forest ecosystems of Chile.

In addition, an environmental consciousness that addresses environmental issues in terms of biological and ecological priorities has also occurred because of the Río Cóndor forest dispute, along with additional environmental campaigns focused on, for example, forestry-related issues and water and air quality issues in Chile. "Primarily thanks to the environmentalist movement - environmental problems being put on stage so much in the public arena, and [through] the highlighting of the errors that have been made, the impression that it is important to protect the environment is being created in Chilean society" *Fernando Dougnac, President of Fiscalia del Medio Ambiente (FIMA)- Chile's Environmental Public Prosecutor Office and lawyer for Pro-defense of the Environment, Santiago, November 25, 2003.* Dougnac highlights an important legal aspect that reaches beyond the sovereign borders of Chile and addresses the role of international trade agreements in shaping the government's/industry's recognition of ecological issues and overall environmental consciousness in Chile. Langman's freelance experience in reporting on environmental, political and social aspects of Chilean society on the other hand illuminates a clear idea of the domestic and institutional approach/perspective to environmental issues. Overall, while a business friendly and technocentric form of environmental consciousness has formed within the minds of industry or government members, the level of *ecological* awareness appears limited in the minds of the public in Chile. In addition, the environmental consciousness in Chile can be attributed to the cultural importance of natural patrimony in Chile.

Not all of the environmentalists were able to travel and see the forests they were working to protect, yet so many of them worked relentlessly for their protection. After my trips to the forests of the Río Cóndor Project, the difficulty in accessing these forests was evident, since they are extremely isolated. In addition, there was very little (if any) ecological information about them. Lack of information coupled with difficult access presented an interesting question as to why people worked unremittingly for something they never even witnessed for themselves. It appeared to me that people had a level of ecological consciousness or cognitive awareness about native forests and their destruction in Chile, which enabled people from, for example, Santiago and elsewhere in the country to act despite never setting foot in the forests. An explanation of why so many people acted despite never seeing the forests for themselves can be attributed to cultural importance of natural patrimony in Chile.

While the idea of natural patrimony received insufficient attention during my fieldwork, I recognized the significance of this characteristic in Chilean society. In my interview with Patricia Cifuentes, local reporter with Polar Radio, Punta Arenas, February 3, 2004, she explains the significance of natural patrimony. She explains how the protection of natural patrimony in Magallanes is very important as it links to a heritage that came from pioneers and early settlers in the region who were 'attached' to the land. These people included Italians, Croatians from old Yugoslavia and people from the North of Magallanes Region and Chiloé (island off the coast of Chile in Region 10) who related with the land in terms of an instrumental, human-focused, "use-oriented" relationship where they forged and cultivated their subsistence and livelihoods. Consequently, the importance in caring for and protecting the natural patrimony -- earth and its various attributes such as flora (e.g., forests) and fauna has been carried down the generations and become a tradition in Magallanes. This idea of protecting the forests of the Río Cóndor Project as natural patrimony was used in environmental groups' messages and by various actors in the forest dispute. The mentality of protecting the land against harm and a 'cult of wilderness' calling for the protection of the planet's unique and diminishing source of large intact temperate forests became a rallying cry and strengthened environmentalist's arguments surrounding the Río Cóndor Project. In particular, the natural patrimony was linked to a national identity and generated attention from people who may not have set foot in the Nothofagus forests at the "end of the world."

In addition, an important event in Punta Arenas informing public opinion and their perception of forest companies occurred when a forest company arrived in the early 1990s to exploit native forests. Magallánica Industrial y Comercial de Bosques S.A. (MICSA) launched a 100,000 ha forest project in 1991 to exploit and transform native forests in Magallanes into wood chips for export to Japan. The project provided employment and development opportunities for a region desperate for an economic boost. However, the company's disregard for ecological issues of the forest, its employees and the region itself,

turned into an example of a socially and ecologically irresponsible company whose reputation resonated in the minds of people living in the region when Trillium arrived in 1993. According to Mauricio Doberti, ex-Trillium Forest Engineer/Manager of Río Cóndor Project, February 23, 2004, Punta Arenas, "Magallánica de Bosques was a bad business, a bad business experience [in terms of] its relationship with the suppliers [and] workers." And unlike Trillium's proposal, elaborated in subsequent chapters, according to Doberti, MICSA did not include environmental aspects in their management plans. Instead, with CONAF-approved management plans, they focused exclusively on harvesting lenga trees for woodchips. In addition, from the initial launching of the project until 1996, CONAF had fined MICSA fourteen times because of violations in harvesting timber in excess of management plans and other environmental infringements (SSDC, 1996). In late 2003 a large mountain of woodchips awaiting export at the port in Punta Arenas accidentally ignited into a massive, slow burning fire, which at the same time saw MICSA ending production in the area and vacating Punta Arenas (for photo, see **Figure 4** in Appendix II).

In this chapter, we have explored Chile's position within the global economy as a satellite nation with an export-oriented, primary production-based economy that originated during the arrival of Spaniards in search of minerals for Europe. However, economic development also created social stratification and a history of social movements challenging the state for social equity. In 1973, the oppressive military regime arrived and transformed the political and economic landscape of Chile through the use of violence and neo-liberal ideas of market-oriented solutions to organizing society and in particular, mitigating environmental issues. It was not until 1990 and the return to elected democracy when the government began to appear to address previously ignored social equity issues and environmental issues as well as participating in and responding to international pressures vis-à-vis their objective in implementing sustainable practices for natural resource use and environmental protection policy. Environmentalism had emerged institutionally and within civil society as organizations and scientists and academics shifted from criticism and research to political action (Camus & Hajek, 1998). However, as we will find in the Río Cóndor forest dispute outlined in Chapter 5, the influence of environmental sidebars in international trade agreements, such as the Canada-Chile Free Trade Agreement, plays a significant role in shaping the behaviour of industry and in particular the state in Chile. Consequently, we find that the history of Chile's colonial development and its recent political economic and environmental history illuminates the state's adopted form of technocentric environmentalism that favours a market-friendly, 'gospel of eco-efficiency' approach to sustainable development. In addition, the historical and current political ecological context also hinders the extent the Chilean state can employ, for example, initiatives for natural resource use and alleviating ecological degradation. In addition, the level of environmental consciousness that was present before the arrival of the Río Cóndor Project and continuing today reveals a technocentric form of environmentalist in alleviating environmental issues.

Against the Political Ecological backdrop presented in this chapter, a global investment company with experience in forestry-related activities was scanning the world for the opportunity to revolutionize large-scale forestry practices by designing a sustainable forestry project that would soon become known as the Río Cóndor Project. In 1993, Trillium Corporation of Bellingham, WA, US, arrived in Chile to launch the Río Cóndor sustainable forest project to both extract hardwood timber and foster broader socio-economic development for Tierra del Fuego. What Trillium did not realize was that the project they hoped would secure a supply of hard-wood timber for furniture consumer markets in the North would not only test their patience and adaptability to adversity, but that it would also challenge the legitimacy of the state in enforcing its newly designed environmental law. The environmental movement continued to emerge out of the dictatorship period and immediately faced Trillium's proposal to log the temperate forests of Tierra del Fuego while cautiously rediscovering their 'voice' in Chilean society. Although, while environmentalism in Chile has existed prior to the transition to democracy, it was not until the 1990s when a small handful of people turned the environmental movement into a politically powerful and significant social actor in Chilean society.

Chapter 4
The Quest for Sustainability: The Evolution of the Río Cóndor Project

Trillium Corporation and Private Initiatives in Resource Management

How does the world figure out how to manage forests in remote places where people need jobs, forests must be protected, and not on a small scale, but on a large scale? Because if we can't figure out how to do that, what we will end up with is a small set of preserves here and there throughout the globe, and then forests that are pillaged in other places. Steve Brinn, President and Vice Chairman of Trillium until 2002, Bellingham, WA, US, July 30, 2004.

Located in Bellingham, Washington, US, in the Cordata business park, Trillium Corporation, in the early 1990s began plans for implementing an innovative sustainable forest management project in Chile that favoured sustainability, as conceived by the Brundtland Commission in 1987, via a practical management plan. Registered in Chile as Forestal Trillium Ltda. and later as Forestal Savia, Trillium was not a large-scale forest company in the United States. In fact, Trillium Corporation, as their website states, is more associated with real estate and global investments. "Since its founding in 1974, Trillium Corporation has evolved from a Pacific Northwest real estate company into a global investment firm with a strategically diverse portfolio. At the time, the company had nearly $400 million in assets, primarily from its real estate and forestry interests, located in nine states within the U.S. and South America" (Trillium Corporation, 2004).

David Syre, Chairman and CEO, Trillium Corporation, and his family have been members of the local community since the early 1900s and his interest in agriculture developed from an early age:

> I, my grandparents, came from Norway and Sweden and came to this area at the turn of the century – that's how I ended up living here. I have lived here all my life. My interest in a career was always agriculture; I starting farming when I was 12 years old, small fruits and vegetables. One of the problems in not being able to farm [in my early days] is that we had a major flood and the Nooksack river took the farm away when I was 5 years old and I had polio at the time so you know, it was a lot of tough luck during my childhood. *David Syre, Chairman and CEO of Trillium Corporation, Bellingham, WA, July 30, 2004.*

Although presented with tough challenges in his childhood, Syre overcame his misfortunes, which likely influenced his drive and determination today in overcoming personal and professional goals. Trillium

Corporation is a relatively small private company with an aggressive and creative entrepreneurial spirit, which has reshaped the landscape and economic status of Bellingham while fostering socio-economic development:

> I made way through college and worked in a bank while I was farming and then I went to law school so I could afford to be a farmer, ha ha, came back and bought a law firm. I practiced law for only nine months and then I created this company Trillium to have a job and create economic opportunity for others in the community. We developed a ten-year plan. Our ten year plan was to help this community be a regional centre rather than an adjunct to Vancouver or Seattle...and to create a regional shopping centre, a regional resort and a regional mixture [or diverse economic] community and we accomplished all three of those, Bellis Fair was the mall, Semiahmoo resort and Cordata is the mixture community. *David Syre, Chairman and CEO of Trillium Corporation, Bellingham, WA, July 30, 2004.*

However, while Trillium achieved their goals of developing economic opportunity for the community, they also become synonymous with controversy in Bellingham as various business activities and decisions generated a range of opposition, particularly from the environmental community: "Trillium is a savage, destructive company. They purchased forestland in Whatcom County, near Bellingham and over a period of about ten years, clearcut the forests, leaving a clearcut legacy for the locals to have to live with. They had terrible disputes with neighbours adjoining their land, cutting right down to their property lines, harming endangered species" *Pat Rasmussen, Forest-Americas Coordinator, America Lands Alliance, e-mail correspondence, June 9, 2004.*

As with many other forest companies in the Pacific Northwest, Trillium was attacked by environmental groups for clearcutting the forests of Washington State. However, criticism extended beyond their forestry practices to their behaviour in the community of Bellingham:

> Trillium is a pretty aggressive development company and at that time I think they were more aggressive than they are now, and they had, there had been some battles fought in the community where I had been on the other side of those battles and one of them was with the building the Bellis Fair shopping centre. They got that property and did that deal in a way that I thought was destructive to the community that was destructive to the downtown and I didn't think that it was good corporate citizenship. They had done a number of other things where they, there were some disagreements about some logging practices and some other transactions with them. They were just controversial. *Rand Jack, First Land Steward of Río Cóndor Project, Bellingham, WA, July 7, 2004.*

A number of Trillium's various investment activities were criticized such as the development of Bellis Fair Mall for its potential negative impact of drawing business away from the downtown core of Bellingham (Bellis Fair Mall is located outside of the downtown on the I-5 corridor) and the concern over increased car traffic in and around the mall and Cordata Park. However, a key event generating significant outrage was the clear-cutting of 2,800 acres on Whidbey Island, WA, US, in 1988. According to Dietrich (1997) in his

Seattle Times article "Chile's Tierra del Fuego: Harvest with Care" written about the Río Cóndor Project, Trillium clearcut the forests on Whidbey Island, WA, US because of economic reasons. Consequently, Dietrich explains that prices were low and demand was high as per usual, but what made this different from the standardized clearcutting method employed throughout Washington was that it was visible to the public. As a result of this event and other provocative actions by Trillium, opposition (e.g., environmentalists and concerned citizens) targeted the company in the form of civil disobedience such as sawdust dumped in their lobby, a group vomit in Bellis Fair and picketing Trillium headquarters.

Despite negative press and dissent by local Bellingham residents, the company began formulating a plan in hopes of creating a sustainable forest management project of hardwood timber like no other to date. A key contributor to the conceptual development of the project was Steve Brinn, President and Vice-Chairman of Trillium Corporation until 2002, WA, July 30, 2004. "I was trained as a lawyer and practiced for 15 years here in Bellingham, and business lawyer, with a progressive law firm and during that period of time developed an interest in the concept of widened private initiatives in resource management. [I] watched the growing tensions between interests with respect to natural resource management and felt that we had arrived at a point in time where much of the opportunity in the future has to do with individuals, in private sector, voluntarily initiating change." The idea of "widening private initiatives in resource management" is of particular importance especially since private initiatives have been the targets of blame for much of the forest degradation on the planet in recent decades:

> I feel periodically we get stuck after a period of change and wrong thinking, that inhibits further progress and fundamentally my view has been that in the end, government is not going to save nature. It's got to progress to the point where there's a reasonable amount of regulation, but there's a lot of reliance on private initiative. I think that because there was so little responsibility historically demonstrated, the environmental movement arose, government moved in and began policing things. And the environmental movement has never really reached the point it can accept that there might actually be people who, because of their own principles, which are every bit as enlightened as ones in the part of the environmental organizations, are making decisions, not because they are forced to, but because they know it's the right thing to do and that's an essential glorious stage of things. *Steve Brinn, President and Vice-Chairman of Trillium Corporation until 2002, WA, July 30, 2004.*

Brinn identified Syre as someone he felt had the capacity to achieve the kind of change that would move them 'outside of the box' in terms of the thinking and approach to natural resource use. "[I] identified David Syre as an unusual individual with the capacity to do these kinds of things, to [be] 100% owner of a corporation with substantial economic capacity, and although it's very controversial because when you do significant things, it's never controversy free. I became convinced that he was a person that could think quite 'out of the box' and if interesting things might happen in the part of the world where I live, in the part of the

natural resource area, he was a great candidate to be somebody to work with." *Steve Brinn, President and Vice-Chairman of Trillium Corporation until 2002, WA, July 30, 2004.*

Addressing an important conceptual and pragmatic question, Brinn raises the issue of creating meaningful change, environmentally, and asks who in society can lead the way towards this change. Whereas governments have often taken a stewardship role in resource management, the physical world continues to degrade as is underscored by many environmental organizations/movements. For Steve Brinn, not only is the private sector capable of offering the means towards effective change, but that it will take unique individuals in the private sector to create interesting initiatives. He considered David Syre to be such a unique individual and presented him with the idea of creating a global model for sustainable forestry: "I would like to propose that we, from day one, in this initiative, take the approach that we're going to create a global model for sustainable forestry. We are going to give serious consideration for breaking all the rules and try to solve what I think is a great problem for the globe right now, which is, how do we come up with something that is not irresponsible industrial forestry that decimates a natural resource on the one hand, and on the other hand, a locked up preserve, how do we escape bipolarity?" *Steve Brinn, President and Vice-Chairman of Trillium Corporation until 2002, WA, July 30, 2004.*

The difficult challenge of finding a middle road through destructive industrial forestry practices and preservation is central to the Río Cóndor Project, which also faced a global reality in the diminishing availability of timber supplies brought on by deforestation (e.g., industrial forestry) and by global environmentalist pressures to end logging in tropical regions. For David Syre, it was a combination of decreasing supplies of tropical hardwood and "some areas being closed off and then in some cases, harvesting had been extensive for decades and [there] weren't any trees – [the] same kind of inventory was not available" *David Syre, Chairman and CEO of Trillium Corporation, Bellingham, WA, July 30, 2004.* According to *Rand Jack, First Land Steward of Río Cóndor Project, Bellingham, WA, July 7, 2004:* "His [Syre's] thesis was [that] there was growing environmental pressure to stop the cutting of tropical hardwoods in tropical rainforests [and this] was going to create a void in the international timber market for hardwoods and that the ability for somebody to be ready to fill that market was going to be a huge economic opportunity." Therefore, while this project set out to balance economic, social, and ecological objectives, it was going to achieve this by capturing a niche market created predominantly because of destructive industrial forestry practices and global environmental pressures to protect tropical forests.

From a conceptual objective of merging private initiative with natural resource management to alleviate environmental conflicts, the next step was to secure a large supply of viable timber to gain a strong position in the hardwood timber-supply industry:

> We started focusing on forestry [in the 1980s] and became the largest, I think we were the largest private forestry owner between Everett and the border [Canada/US]. During that time, I started doing research for other forestry opportunities and my guidelines that I based my research on were to find countries attached to the Pacific Ocean that had more sustained yield than domestic consumption so there was a surplus of fibre. We found those countries to be Canada, Russia, New Zealand and Chile and we pursued forestry opportunities in all of those countries. Canada I felt was difficult because of so much public ownership. [We] pursued products in Russia, but the person we were working with was assassinated so I thought that was a pretty tough place to do business. We actually made a deal and then he was killed the next week. New Zealand we felt to competitive so we ended up focusing on Chile. *David Syre, Chairman and CEO of Trillium Corporation, Bellingham, WA, July 30, 2004.*

For Syre, Chile offered the most appropriate location for his company's vision of an innovative sustainable forestry project to those found in North America or elsewhere. "We were looking for something exactly what we found in Chile and that was a large landscape where we could establish principles and be able to execute on them and so we actually wrote those stewardship principles I gave you (see Appendix VIII) and signed them before we acquired the property. Our efforts there were to try and seek a balance between social, environment and economic [objectives]" *David Syre, Chairman and CEO of Trillium Corporation, Bellingham, WA, July 30, 2004.* Along with the Stewardship Principles, they created an independent land steward that had access to all of their records and information; Rand Jack was the first land steward for 1995/96 followed by Dr. Jerry F. Franklin beginning around 1996.

Central to the Río Cóndor Project are the Stewardship Principles, the Independent Scientific Commission (discussed later in this chapter) and a Land Steward to monitor Trillium's actions. For Steve Brinn, "I wanted to create a constitution, because I knew that the chances of our ever overcoming the reflexive opposition and skepticism of so many people in the world were small. We had to do some things at the very beginning to convince people that we were not responding to their pressures. [Instead] we were ourselves, on our own initiate, at the very outset, day one, making highly unusual commitments" *Steve Brinn, President and Vice-Chairman of Trillium Corporation until 2002, WA, July 30, 2004.* The Stewardship Principles were designed to provide clarity and understanding of the objectives of Trillium and the guidelines used to carry the objectives out in hopes of preventing or extinguishing opposition. As Rand Jack explains, the principles acted as a measuring stick so that they had a set of guidelines that could be measured against Trillium's behaviour or actions. "The goal is to write something down that will in fact become a measuring stick and it will, its sort of like a constitution, its not just a bunch of aspirations, but that we will measure what we do by this. When a decision is being made we will refer back to these documents and that happened on more than one occasion" *Rand Jack, First Land Steward of Río Cóndor Project, Bellingham, WA, July 7, 2004.*

However, Rand Jack was also quick to respond to my question concerning the reality of Trillium actually following these guidelines since law or strict enforcement does not bind the principles:

> It's also very easy for companies to sign something like that and say 'ya, ya', here are our principles we believe in motherhood and apple pie and going about their business and so, I think you really have to look at the context and look at what people's intentions are in doing that. You have to have some kind of structure that's built around the stewardship principles that make them work and that's why I thought it was important to have a person who in some ways, I sort of saw my job as defender of the stewardship principles. I am not so naïve to think that those who sign the stewardship principles and everybody lives happily ever after by any means, but I think they can be important if you've got a structure that makes them important. *Rand Jack, First Land Steward of Río Cóndor Project, Bellingham, WA, July 7, 2004.*

Also evident even in the early stages of developing the Stewardship Principles was conflict. According to Steve Brinn, friction arose internally within Trillium since he himself was pushing the norms of forestry. Brinn believes that bold change often requires people who are less attached to traditional conceptual or paradigmatic viewpoints in order to foster change:

> I didn't have skills as a forester, I wasn't encumbered by old thoughts of how you do this. One of the dangers in the project was that since I was taking a lead, I immediately got into trouble internally with our foresters. The stewardship principles were developed without significant input on their part. I knew that they would resist something so bold on the front end. [I] presented to them what we were going to do as opposed to something for discussion. I think these things require, very often require people who aren't domain experts to be involved in a very high level. *Steve Brinn, President and Vice-Chairman of Trillium Corporation until 2002, WA, July 30, 2004.*

In addition to the Stewardship Principles, Trillium employed a land steward to enforce the principles and meet with environmental groups in Chile in anticipation of their opposition to the project. The land steward was given the responsibility of providing information to interested parties and to provide answers to their critics:

> I went to each one, I tried to explain who I was, what I was doing and it took, I mean, there were varying degrees in which I was accepted or not accepted and I worked hard for those two and a half years that I was involved in this at getting accepted. I told them that I was essentially there to help them and I would give them any information they needed. If they had any questions, I would see that the questions were answered and that I if I didn't know the answer, I would tell [them] that I didn't know the answer. And slowly, I slowly got a degree of acceptance I think from almost everybody. *Rand Jack, First Land Steward of Río Cóndor Project, Bellingham, WA, July 7, 2004.*

It is evident that the strategy in developing the Río Cóndor Project was about 'thinking outside of the box' and implementing measures to alleviate or respond effectively to anticipated conflict when launching it in Chile. While Trillium unfolded an effective strategy, their ideas of sustainable development and the form of

environmentalism shaping their approach to forest intervention exemplify technocentric managerialism and the controversial perspective of a domineering relationship with the biophysical world.

Trillium made it very clear that they were "trying to create a new model for sustainable development" and in particular, "felt very strongly that forests to be managed in the long term could not fit into either categories that forests seemed to always fit into, and that is a very, very aggressive harvesting without regard for a lot of other things that depend on it, a lot of other influences where life depends on a forest or just closed off and nothing happens at all. So we were seeking that in-between position that we call sustainable development" *David Syre, Chairman and CEO of Trillium Corporation, Bellingharn, WA, July 30, 2004.* Sustainable development for the Río Cóndor Project consisted of human intervention in the forests of Tierra del Fuego in such a way that involved harvesting, but also recognized the importance of ecological characteristics of the forest.

However, when we examine Trillium's conceptual approach to sustainable developrnent, we find that the ideas shaping the uniqueness and evolution of this project is the belief that managing the land 'improves' the land: "We thought over time, we would improve the environment for all the different species of people and birds and animals that depend on it. Now it's just sort of decadent and about as much lives as dies each year - is pretty much in balance and you'd have a much wider variety of habitat because you would have different kinds of growth taking place" *David Syre, Chairman and CEO of Trillium Corporation, Bellingham, WA, July 30, 2004.* Dr. Jerry Franklin, the Second Land Steward for the Río Cóndor Project, shares a similar perspective: "In other words, human intervention in the form of a sustainable forest management plan would improve the forest's productions and ecological characteristics" *interview, University of Washington, WA, July 19, 2004.* Gabriel Rodriguez, Operation Manager for Forestal de Trillium Ltda., has a similar perspective that human intervention in the forests in Tierra del Fuego will 'improve' the land:

> "Everyone says those [forests] are really old. That's true, but the way to grow this forests is by patches, that's why it's over-mature and always will be over-mature because in some mass of forest or stand of forest, when one of the older trees fall down by the wind, [it] creates a space there for regeneration. So this is the only way for this forest, in the natural way, to grow again. You will have an over-mature forest there if you don't [do] silviculture there." *Gabriel Rodriguez, Operation Manager for Forestal de Trillium Ltda., Punta Arenas, Chile, January 22, 2004.*

For Trillium, appropriate forest management improved the production of the forest and biodiversity, and without intervention the forests would remain over-mature. Improving, nurturing and cultivating the forests with effective management strategies involving technology and Northern 'know-how' perpetuates a familiar way of approaching natural resource use often employed by forest companies and government

ministries throughout the world. Framing intervention in this context assumes humans have sufficient knowledge of the ecosystem dynamics they are meddling in so as not to cause destruction or degradation and ultimately raises the issue concerning 'limits' or thresholds to intervention. Overall, technocentric environmentalism works particularly well in achieving economic objectives since the framework shapes desired economic conditions such as creating a high degree of certainty and standardized timber production to meet with market demands.

According to Wayne Schwandt, Director of Latin American Operations, Trillium Corporation, the market for lenga wood was always there, but the product was not well known. The lumber was to be exported to meet speculated US and European market demands for furniture production. "Europe was leading the way, they were already starting to say, we want, when we put a nice piece of furniture in our home, we want to be able to feel good about it, that it wasn't snuck out of a rainforest in Indonesia but [that] it came from a sustainable forest and it was done correctly." *Wayne Schwandt, Director of Latin American Operations, Trillium Corporation, Bellingham, WA, July 7, 2004.* For David Syre, he also recognized an emerging middle class during the 1990s in China and India, which would become a source of new consumers of hardwood products such as furniture:

> There's always been a market for the hardwoods, it was less known than it is now. The distortion of supply and demand over the last decade and a half has been just the way we predicted, there's less and less supply and more demand. It's [now] coming globally, but there's middle classes emerging in places like India and China. The market was absolutely there and always has been, never been a question of market. We went down with knowledge about how to manage a forest, but not with knowledge of how to manufacture a product and sell it. Ok, well, now we have enormous strength in that area and we could easily sell the entire production of all the lands down there through our sales organization up here today. *David Syre, Chairman and CEO of Trillium Corporation, Bellingham, WA, July 30, 2004.*

Obviously, market demands informed Trillium's decision to design a sustainable forest project that was environmentally and socially correct:

> The global picture of hardwoods for furniture manufacturing was going to be constrained in their supply, because you know, tropical hardwoods are going to be taken off the market for environmental reasons, there is going to be increasing demand for fine furniture as the middle class world-wide continues to grow. You are not going to have access to fibre supply unless we do it in an environmentally correct and socially correct way because the market won't buy it. I mean, even though its our ethic to do it right, at the at the end of the day, the market will determine whether your successful or not and the market back then was starting to say, look, we want green stuff. *Wayne Schwandt, Director of Latin American Operations, Trillium Corporation, Bellingham, WA, July 7, 2004.*

The Río Cóndor Project evolved out of a number of reasons, but Rand Jack sums it up best by identifying three factors that made it feasible:

> One of the things that made it plausible was David's personality. David is a person who cares very much for invention, leadership -- his boldness, his willingness to do things in order to put himself at the cutting edge. That was one factor that, had it been a conservative businessman doing it, I think it would have been a lot less interesting. A second factor is that the capital investment here was relatively small compared to the economic value if you could figure out how to get it out and do something with it. The profit, the potential profit margin was enormous so you could afford to give away a big chunk of profit margin and still have a very, very successful operation. *Rand Jack, First Land Steward of Río Cóndor Project, Bellingham, WA, July 7, 2004.*

The purchase price of the land was considerably lower than prices in other parts of Chile and most certainly in the US because of its remoteness and lack of infrastructure such as roads or ports. As with any forestry business, the lower the start-up costs and costs of production, the higher the potential profit that is available. Unfortunately, factoring environmental aspects into production relates to a "cost" and consequently increases the costs of production. To maximize profit, either the initial costs of investment must be lower than market value or the company must find other ways of cutting costs such as labour. In the case of the Río Cóndor Project, Trillium acquired the land at a relatively inexpensive price and was therefore afforded a greater margin of flexibility in experimenting with environmental and social objectives. Rand Jack continues:

> A third factor was that this was a natural, for all practical purposes, a naturally occurring monoculture. I mean, [what] forestry companies around here [Washington] try to do is to create an artificial monoculture because [a forestry project] is much easier to operate in a monoculture where you've got one kind of tree growing and you essentially control [it]. It's like a farm where you are growing wheat. The management of that forest to maintain the ecosystem was much simpler than the management of almost any other forest to maintain the ecosystem. *Rand Jack, First Land Steward of Río Cóndor Project, Bellingham, WA, July 7, 2004*

A monoculture forest is an ideal forest for management since it means that only one species of tree occupies the management objectives as opposed to two, three or even more species co-existing in the same ecosystem. Plantation forestry is an example of an extreme form of monoculture forestry, which unlike the lenga forest in the interior of Tierra del Fuego, consists of unnaturally (and often non-native) occurring tree species. Despite the three aspects Jack presents above, there are also major challenges that go beyond Syre's personality, the relatively low-priced purchase of the land and the natural characteristic of the forest:

> On the other side – the remoteness, the lack of trained forestry experts, and foresters, lack of infrastructure, the problem that nobody knew anything about this kind of wood in terms of - it's wood that is largely used locally, there was no market for it, you had to create a market for it. But those seemed like the kind of problems that with an imagination and resources you could solve. And the other things were things you couldn't create no matter how much money and imagination you had. I think from a rational point of view,

this was like a, this seems like a bet worth placing *Rand Jack, First Land Steward of Río Cóndor Project, Bellingham, WA, July 7, 2004.*

The strategy and conditions were set for the Río Cóndor sustainable forestry project to foster socio-economic development in Tierra del Fuego and make Trillium Corporation a leader in sustainable forestry. It also offered the opportunity for Chile to embrace this project and put the government on the cutting edge of achieving sustainable forestry.

Consequently, equipped with the conceptual tools and set of guidelines for launching a sustainable forest project, Trillium arrived in Chile in 1993 and soon after acquired a 272,729 ha forestland on Tierra del Fuego[21]. Trillium reportedly purchased 825,000 acres on Tierra del Fuego for $42 million or an average of $51/acre in 1993 (Dietrich, 1997) from Cetec Engineering Ltd of Vancouver, British Columbia, Canada and Sentanr Enterprises Limited of the Grand Caymans. Registered as Cetec-Sel Ltd in Chile, the previous proprietor purchased the land for an extremely low price from the Military government and planned to harvest lenga for furniture but also for wood chips for export to Japan[22]. However, Cetec-Sel eventually terminated the project after bogging down in permit issues and uncertain water sources, which were crucial for their proposed pulp mill. Now, with the final piece of the plan in hand, a forestland, Trillium was ready to begin launching the Río Cóndor sustainable forest project.

Trillium Submits Voluntary EIA

By 1994, the same year Chile passes the new environmental framework law (Law 19,300) with provisions and conditions for environmental protection and conservation in Chile, Trillium was ready to launch the project after acquiring cutting permits from CONAF. However, instead of proceeding with operations, the company voluntarily opted to be the first company to undergo the Sistema de Evaluación de Impacto Ambiental, (SEIA, System of Environmental Impact Study) process in accordance with the new environmental framework law. A provision of the new law required that all large-scale projects fall into Chile's new guidelines for sustainable development by submitting the environmental impact assessment (EIA). However, the new environmental framework law contained only provisions and conditions as opposed to regulations to guide the process. The regulatory framework for Law 19,300 was not formalized until Supreme Decree No. 30 in 1997. In the interim, the government created a voluntary system enacted by the Presidential Instruction No. 888 (1993) for environmental assessment of large-scale projects (Sheppard, 1999). The timing of this is very important for the Río Cóndor Project since Trillium had the necessary

[21] Trillium, registered as Lenga Patagonia in Argentina, also purchased approximately 70,000 ha of forestland on the Argentinean side of Tierra del Fuego for the Río Cóndor Project, but this thesis is only focusing on the Chilean context.
[22] According to Nash (1991), in the 1980s, the military government began selling off land for 50 cents - $1.50/acre; when Cetec-Sel arrived they were offered between $2.50-$25/acre.

cutting permits to begin harvesting timber, but instead chose to voluntarily enter the new EIA process. However, the decision to enter the EIA process by Trillium was not an immediate "voluntary" submission:

> One of the issues that was much discussed was whether or not [to enter voluntarily] because Cetec-Sel had gotten some permits and Trillium had a plausible argument that the law, the environmental law, did not apply to them. I said no, you need to do an environmental impact. If you are going to have any credibility operating here, than you need to go through the environmental impact process and nobody has ever been through it. You'll essentially set the model and that's what you want- to set the model. So, at first Trillium did not want to do an environmental impact statement, but after some fairly prolonged conversation, they agreed that they would do an environmental impact statement. *Rand Jack, First Land Steward of Río Cóndor Project, Bellingham, WA, July 7, 2004.*

For David Syre, the rationale for voluntarily entering the SEIA process illuminates an economic strategy as well as demonstrating the company's integrity:

> Rand Jack and Steve [Brinn] were leaders in saying that we were from out of the country and if we really meant what we were saying, that it was only responsible for us to do the environmental work first and if we didn't do the environmental work first, it would have taken quite a lot to build a mill anyway. So if we were going to start cutting right away, we would have to export the logs and we looked at that a little bit but not too much. So there was that practical aspect [and] as it turned out the environmental work took much longer and of course with all of the appeals, took years, but the main thrust was that it showed more integrity. We thought that we would be more trusted, show that we really meant what we said. *David Syre, Chairman and CEO of Trillium Corporation, Bellingham, WA, July 30, 2004*

With intentions of demonstrating their commitment to their sustainability objectives, Trillium decided to participate in the SEIA process. However, earning credibility was also linked to a financial decision that recognized that harvesting was not going to occur right away, since a mill had yet to be built to process the timber. Entry into the SEIA process was about earning credibility and an economically appropriate option under the circumstances. After much discussion between the officers of Trillium, they eventually agreed to enter the SEIA process, which required them to gather ecological data from the property since very little information was available to design the environmental impact assessment.

The Land of the Río Cóndor Project

I was fortunate to experience two separate trips to the forestland of the Río Cóndor Project. My first expedition was guided by Christian Miranda, ecotourism operator and participant in my research, who took us along the western coastline of Tierra del Fuego from Porvenir to the Río Cóndor delta for a 3-day weekend (see Figure 2, Chapter 1 for map). Camping along side the Río Cóndor and spending an afternoon

viewing the forestlands and the distant mountain range of the Cordillera Darwin to the south under a windless, clear blue sky was a memorable experience like none other to date. Here I discovered the mixed forest on the coast and the remains of earlier forestry activities/camps from the early 1900s, large burn patches from earlier sheep settlers, and now cattle meandering amongst the pampas grasses. My view of the property looked down the glaciated u-shaped valley of the Río Cóndor and the many nearby rolling mountain tops scattered across the landscape. Walking out onto the delta of the Río Cóndor was surreal – small patches of flora growing through dry, crusty, beige soil with nearby saturated earthy brown toned mud sections (for a photo, see **Figure 5** in Appendix II).

On my second trip to the forestlands of the Río Cóndor, I accompanied two people from the current owners of the property as of 2003, Goldman Sachs,[23] who were travelling to each of the three main forestry camps on the property to bring supplies and visit with the camp caretakers. After signing my consent form for authorization to access the property, the three of us set off for Porvenir before making our way to Vicuña Estancia, the most eastern camp on the property and where the project would have officially started (see **Figure 2**, Chapter 1 for map). From Vicuña, we travelled to the estancia at Lago Escondido and then off to Puerto Arturo on the coast. During my stay at the Vicuña ranch, I was taken into a sector of the property where small test cuts of approximately 500 ha in total were done in 1999-2001. Here I was able to see the non-logged, harvested sections by Trillium as well as the relentless and destructive behaviour of the beaver (for photos, see **Figures 6, 7 and 8** in Appendix II). I am grateful for the opportunity to see the forestlands and the hospitality of both Christian Miranda and Goldman Sachs.

Ecological information on Tierra del Fuego is limited and most of what is now available was gathered by Trillium during the preparation stage of the EIA for the Río Cóndor Project. Therefore, for this thesis, I use the classifications and data of the Independent Scientific Committee (ISC). Trillium Corporation commissioned the ISC with the purpose of gathering ecological information of their property for the EIA, for which they hired Dames and Moore, a consulting firm from Washington, US, to organize the findings and put forth the management strategy of the Río Cóndor Project. In particular, the ISC assembled researchers and conducted baseline studies to evaluate feasibility and needs for the ecologically sustainable project and corresponding biological reserves. For David Syre the ISC was to be "a living creature, in other words, that it had a perpetual life and had enough flexibility and management that we could respond to changes over time" *David Syre, Chairman and CEO of Trillium Corporation, Bellingham, WA, July 30, 2004.*

The ISC was essentially responsible for guiding the project in achieving the goal of a sustainable forest project by: providing recommendations in mitigating and monitoring terrestrial ecosysterns, carrying

[23] Goldman Sachs is a global investment banking, securities and investment management firm from New York, US. See Appendix I for brief explanation of the transfer in ownership from Trillium to Goldman Sachs in 2003.

out future ecological monitoring and suggesting areas for future long-term research in facilitating ecological sustainability (Arroyo et al., 1996). Fieldwork commenced in late November 1994 and was completed by late March of the following year in three sectors: Sector Estancia Vicuna in the Southwestern sector of the land, Sector Rio Bueno in the Northwestern sector, and Sector Río Cóndor in the eastern sector.

During both of my trips to the forestland, I saw a range of ecosystems on the Tierra del Fuego landscape and marine surroundings. Travelling south took us through pampas grasslands and periodic tundra or peat bogs spanning as far as the eye could see. During my first trip along the coast, I saw the kelp beds, which make for good eating for the dolphins and various bird species cruising the coast. As we began to encounter pockets of trees and underlining shrubs, I saw many guanaco, a native species similar to llamas found on the mainland further north. The guanaco enjoy feeding on the lenga seedlings, which presented a significant challenge to Trillium with respect to regeneration plans of the project. However, it was not until I found myself on the property of the project itself when I began to really appreciate the uniqueness of this landscape (for a photo, see **Figure 9** in Appendix II).

Located at approximately 54° S latitude and in the southwest coordinate of the Tierra del Fuego, Chile, the 272,729 ha property of the Río Cóndor Project was unlike any landscape I have seen (see **Figure 2**, Chapter 1 for map). Despite the rolling mountains whose peaks range up to 1000m with some slopes greater than 50%, and a relatively flat topography of valleys and peat bogs, the spectrum of green and brown tones beneath an enormous blue sky captured my attention immediately. The sky is huge down there and it you look for it, you can see the curvature of the planet where the land and sky meet.

According to some of the people I travelled with that are familiar with the weather in the area, the weather during my two visits was apparently not unusual for the time of year, February and March, but the lack of wind certainly was. The region is known for its persistent winds that blow at speeds up to 180km/h. The temperature when I was there reached about 24° C but according to the ISC, this generally cold maritime climate has a mean temperature of 2.6 to 5.1°C in the summer[24] and -0.2 to -5.2°C during the winter. Precipitation is distributed relatively evenly over the property and averages 450 mm in the eastern sectors to 1100 mm in the coastal sectors. Snow that usually arrives in the winter rarely stays for long in the western sectors. Fog and low-lying clouds are also common in the area, which suggests atmospheric inputs of moisture for vegetation (Lindenmayer & Franklin, 2002).

[24] The summer figures were way out of line with the approximate 24°C temperate I experienced during my visits in Tierra del Fuego in the peak summer months, January and February. The data used in the ISC study for temperature means dated back to a 1975 study.

The Forests

The Nothofagus (or southern beech) forests on the Río Cóndor property belong to the circumantarctic biome, which is similar, according to the ISC, to the boreal forest zone in the Northern hemisphere. There are a number of different tree species on the property, but the three most dominant consist of deciduous lenga (*N. Pumilio*), the evergreen coigue de Magallanes (*N. Betuloides*) and lastly, the deciduous ñirre (*N. Antarctica*). It was very difficult for me to decipher the difference between the species when I was in the forests, but if you look at the leaf and overall shape of the tree, you can begin to learn how to identify each of the specific species. The forest is classified as a temperate forest (as opposed to a temperate rainforest) because the ISC rainfall criteria did not exceed the 1400 mm annual precipitation requirement in the ISC climatic criteria. In addition, the forest is specifically considered a Boreal forest, which the ISC includes as a type of temperate forest. Of the total property (272,729 ha), approximately 147,905 ha or 54% of the landbase is forest with 103,000 ha as commercial forest (Forestal Trillium Ltda., 1995).

The lenga was the main species selected by Trillium for the industrial component of the project and would be marketed in competition with diminishing Northern cherry wood stocks for Northern markets in the US and Europe[25]. The property is not a homogenous landscape and the forests overall vary in composition, structure, and dynamics. However, the lenga tree, the preferred species for the project, has a relatively uniform structure of multi-aged old growth in the interior of the property (which was the favoured sector of the property for its monoculture structure) with a simple understory of herbaceous species and woody debris. Commercial tree quality located on the property reached average heights of 19-24m. The tree species overall do not exceed 250 years in age.

The soils of the forestland are important for ecological reasons, but also for the forest dispute. According to the ISC, soils on the property are "classed as thin to very thin, with a rooting zone of less than 40cm and rarely deep as 70cm" (Arroyo et el. 1996, p. 110). The thin soils coupled with high windthrow means that trees are subject to blow down which exposes soil to erosion.[26] And reportedly, the anthropocentric sources of disturbance in the forests of the Río Cóndor Project historically have been burning, grazing (cattle and sheep) and selective logging from the early 1900s. The coastal sectors have more recently been subject to the introduction of cattle more than the eastern sectors. As for autogenic sources, wind is the main source of disturbance in the forests, which plays an important role in regeneration processes. Persistent winds create gaps or patches in the forest, which allow light into exposed areas where dormant seedlings await sunlight for growth.

---

[25] See **Figure 2** in Appendix II for a consumer product made from lenga timber in the local lumber retailer, Famapal Ltda., in Punta Arenas.

[26] See Rebertus et al. (1997) for discussion on windthrow and landscape dynamics of Nothofagus forests in Tierra del Fuego.

Non-forested ecosystems

The property is home to a number of non-forest ecosystems, which include turbas (or peat bogs), Río Cóndor delta, wet steppe, lake edges, tertiary outcrops, coastal scrub, river terraces, and alpine sites (Arroyo et al., 1996). These important elements all play specific roles in a fully functioning and healthy biome on the Tierra del Fuego (Lindenmayer & Franklin, 2002). In addition, it is important to note that ecosystem boundaries do not coincide with property boundaries or political jurisdictions; Trillium, under the registered name, Lenga Patagonia, owns the continuation of the forest landscape into the Argentinean side of Tierra del Fuego. Biodiversity on the property is low to moderate.[27] Species found and studied on the property are mammals, birds, lichen and mosses and insects. The forests of the property are generally high in plant species diversity and contain a high proportion of the forest birds and mammals found in Tierra del Fuego (Arroyo et al., 1996).

Data Concerns

Trillium decided to voluntarily enter into the SEIA process. In order to meet the requirements of the impact study, they were required to present adequate ecological information to ensure protection of natural resources and environmental attributes as required by the environmental framework law 19,300. At that time, there was very little, if any, ecological information about the ecosystems of the Río Cóndor property. The Independent Science Commission (ISC) was formed to fulfil this deficiency and gather data, formulate an ecological baseline for future management harvesting, and evaluate the appropriateness of intervention in this relatively unique and 'scientifically' unknown landscape. However, Trillium was initially reluctant to have an all Chilean ISC team: "they [Trillium] essentially wanted to import a team of North American scientists to do it and I said no, at the heart of it, [it] has to be Chilean" *Rand Jack, First Land Steward of Río Cóndor Project, Bellingham, WA, July 7, 2004.* While comprehensive and impressive as to the scale and quantity of the data significantly funded by Trillium, there was criticism over the type of data gathered and how it was used:

> The scientists did what they were asked to do. We need to know what there is and where it is [i.e., a base-line description], if you did more in that area you would begin to obtain more information and you could have more interconnection, but if the information is compartmentalized - the archaeological [research] was compartmentalized there. For example, if you are an archaeologist, you can say that there are shell mounds, there are human remains, but it is another thing altogether to convey the importance of this place, its place in time, and its relation to the project, that is, if it is compatible or not. That

[27] See Armesto et al. (1998) for a discussion on biodiversity in Chile and the priority need for protection between 35.6°S to 41.3°S further North in south-central Chile as opposed to the far south in Tierra del Fuego.

> doesn't exist here. *Christian Miranda, Eco-tourism operator in Tierra del Fuego, Punta Arenas, February 12, 2004.*

Miranda points out that it is one thing to collect data, but it is another to extrapolate or infer connections between the ecological, or in his example, archaeological, to the 'bigger picture' issues such as a sense of place and temporal scales. His term "compartmentalize" is important here as well since what is at the heart of sustainability in the project is the application of ecosystem-based forestry and landscape level adaptive management. It is one thing to take inventory and create a check list of ecological characteristics of the landscape, but taking the data further and examining relationships or linkages to other species is essential for any ecologically-based management project:

> Remember, ecology is at its roots the study of species, but it is not the study of their interrelationship with humanity and that is where the disconnection between the Trillium Project and this issue can be seen. Here the interrelation between [eco]system [and] exploitation is not considered, the [link between the] [eco]system and the project doesn't exist [in the reports], because it is an ecological relationship, man is outside of this ecological [context]. *Christian Miranda, Eco-tourism operator in Tierra del Fuego, Punta Arenas, February 12, 2004.*

Indigenous People

Prior to Europeans "conquering" the Tierra del Fuego, so named because when Magellan arrived, he saw small fires scattered along the beaches providing sources of heat for the Selk'nam indigenous group occupying the territory, indigenous groups relied on guanaco as an important resource but also hunted rodents and terrestrial birds, marine animals, such as fish, whales, molluscs, berries and fungi. According to the archaeology report of the ISC, Tierra del Fuego is an archaeologically significant area in southern South America (Arroyo et al., 1996). The Selk'nam (also known as 'Ona') are semi-nomadic hunters and gatherers and include three different sub-groups, which occupied the north, south, and southeast regions of the island. Other indigenous people in Tierra del Fuego included Alacalufes or Kaweskar and Yámanas (canoe people). Before the ISC, there were no systematic surveys of the island for archaeological sites. The ISC lists 77 archaeological sites, the majority middens.

Today, according to Nelson Iguilera, Director of Corporación Nacional de Desarrollo Indígena (CONADI, National Corporation for Indigenous Development) in Punta Arenas, there are no longer Selk'nam people after their extinction by European settlers. "In Tierra del Fuego island, we do not have any original or indigenous population. We do not have any community. The Selk'nam people disappeared in 1930, [there are only] just some immigrants, Mapuche Huilliche immigrants from Chiloé" *Nelson Iguilera, Director of Corporación Nacional de Desarrollo Indígena (CONADI, National Corporation for Indigenous Development), Punta Arenas, February 25, 2004.* Not unlike many other parts of the world, the history of indigenous

genocide or forced assimilation into European culture is evident in Chile and Tierra del Fuego as well. However, what was also unique to Tierra del Fuego was how the Selk'nam people themselves and the importance of territorial land claims consequently contributed to their own demise.

> The extinction of the Selk'nam people fundamental cause was because of farming. When the farming began in 1881, the sheep grazed in the same places of the guanacos. So the guanaco population were forced to occupy some inner space in the island. So, the haruwen (territorial sectors on the island) were compress[ed] because the hunters followed the guanacos. The [beginning] of the extinction of the Selk'nam people was fraternal wars because the haruwens were broken [i.e., the Selk'nam crossed into other territories, which often resulted in violent conflicts]. So they were actually fighting themselves and killing themselves. *Nelson Iguilera, Director of Corporación Nacional de Desarrollo Indígena (CONADI, National Corporation for Indigenous Development), Punta Arenas, February 25, 2004.*

However, the European settlers can be targeted for both causing the territorial conflict in the first place, but the cultural destruction is more evident with the role of the missionaries of the Catholic Church.

> The farmers [were also] responsible for the extinction of these groups and the Catholic missionaries because in 1895 marginal groups of Selk'nam were confined into two Catholic missions. The priests, [made] some very, very hard decisions about the Indians because these people weren't married under the Church law, so the priests separated the men and women. So we don't have any children born for 3 years in the missions between 1895 and 1898. And in this period appeared tuberculosis, small pox, and chicken pox. So the indigenous people begin to die in crushing numbers and we didn't have regeneration. *Nelson Iguilera, Director of Corporación Nacional de Desarrollo Indígena (CONADI, National Corporation for Indigenous Development), Punta Arenas, February 25, 2004.*

With respect to the Río Cóndor forest dispute, environmental groups consulted indigenous people with respect to patrimonial and archaeological aspects, but even though the ISC included archaeological research according to Iguilera, Trillium never consulted the indigenous people in the region. Exclusion and marginalization are common consequences of a history of racism and disregard for cultural identity and is evident in indigenous people's exclusion from public hearings or public consultation. This has been common practice everywhere in Latin America, until quite recently. Whether Trillium is at fault for neglecting to consult with Indigenous people or not is for you, the reader, to decide, but perhaps the urgency of this issue is more evident in the context of Chilean society overall:

> The indigenous opinion is not considered. Just last year, 2003, the opinion of the people was considered in the public affairs within several projects relating to the interests of the people here in Magallanes. The indigenous people, or the indigenous community, are very interested in [providing] observations [or comments] about some projects. They have an opinion about different matters. [But] we're fighting against a mistake, a historical mistake [that] in Magallanes, 'we don't have any indigenous people'. So in the last years, the indigenous people are more visible to the public. We are fighting against a misconception about the "non existence" of the indigenous [people]. It's hard, it's very

> hard...to the reporters of the newspapers, the matter about the indigenous people is [only] effective when you have conflict. If [you] don't have any conflict, it's not news. *Nelson Iguilera, Director of Corporación Nacional de Desarrollo Indígena (CONADI, National Corporation for Indigenous Development), Punta Arenas, February 25, 2004.*

Again, the issue of indigenous exclusion from public discourses in societies is unfortunately a common reality, even in today's world. The ISC did attempt to include an indigenous component in their inventory of the property, however, archaeological research into the indigenous cultures on the Río Cóndor property is arguably insufficient. Iguilera illuminates a much deeper issue in Chilean society than the need in gathering inventory of middens, which is important but may have benefited the project more had indigenous people been consulted by Trillium as they were by environmentalists.

The Management Plan: Shelterwood Harvesting

The forest management plan of the Río Cóndor Project was a landscape level adaptive management strategy. This means the forest company was planning to log while committing to annual monitoring studies to ensure ecological requirements were being met and that overall project objectives remained on schedule. 'Landscape level' indicates the spatial area used when designing the overall project. Landscape level management refers to a spatial level offering a larger scale for forest management that better incorporates cumulative effects of intervention and avoids fragmentation. The landscape scale includes the entire 272,729 ha property and the ecological characteristics within. Forestry has traditionally focused on the stand level, defined as a relatively homogenous group of trees in age, composition, and physical environment. The stand level is perceived as a smaller scale than the landscape level. The stand levels are where the shelterwood harvesting would occur throughout the property. Adjacent to these stand levels included old-growth retention of up to 25% or 65,000 hectares, which attempted to ensure preservation of riparian zones and maintaining biodiversity. "The main goal for the retention is to provide the source to recognize the area if you were loosing some mosses, you know, or fungus or all the other things. So the retention has to be very similar to the original forest, and that will provide nests for birds" *Gabriel Rodriguez, Operation Manager, Forestal Trillium, Punta Arenas, January 22, 2004.* Consequently, landscape level management, in theory, means that forest harvesting could occur more intensively at certain stand levels as long as the landscape level maintains the overall management objectives. "In other words, even though you maybe affecting some species in those areas that were harvesting, they will be present in many other areas where you are not intervening because they are [in a] suitable environment" Luis Contreras, General Manager, Forestal Savia, Santiago, November 24, 2003. In addition, for Contreras, if

there was a problem with the forest management and regeneration of the forest, the problem would be Trillium's to deal with as opposed to an ecological problem:

> So this harvesting, all within the range of the natural landscape. If the company runs out of forest, it's their problem. They would not be authorized to cut more forest of their own land just because it has to feed a plant (i.e., industrial plant). If you care about the forest, all you have to care about is that the forest, the harvested forest, [is] harvested with good practices and it actually regenerates, that's it. Lets say in 70 yrs, it has already harvested everything and doesn't have enough, and the regeneration hasn't been as quick enough in order to harvest the initial portion of the area that were harvested initially, it's our problem. The forest will not be threatened at that, it will not up rise to that. So to manage the forest, you will have to avoid this [ecological problems]. *Luis Contreras, General Manager, Forestal Savia, Santiago, November 24, 2003*

The objective of the forest management strategy is to ensure adequate regeneration of tree species for the perpetuation of the Río Cóndor Project.

The harvesting strategy for the Río Cóndor Project involved a technique known as Corta de Protecion or "shelterwood harvesting." Unlike clear-cutting (tala rasa) which sees the entire vegetative landscape removed, or selective harvesting which involves extracting or 'selecting' specific species deemed valuable while the remaining forest remains intact, shelterwood harvesting is neither. This technique on which Dr. Harald Schmidt of the University of Chile has done extensive research and mastered the method in lenga forests[28], essentially works on the strategy of maintaining the forests' natural composition of even-aged tree stands. Up to 60% of the trees are selected for the initial harvest, while leaving the remaining trees for the following harvest. The second cut is done when regeneration of the new seedlings (either natural or replanted) reaches a certain desired growth objective ensuring renewal of the forest (estimated in approximately 15 years in the Río Cóndor Project):

> So when they [lenga seedlings] are initially very little and you finally select the trees that will be the older trees because at the beginning you have thousands of trees, you manage it and cut those branches, because you don't want to have knots. So at the beginning [of your management objectives], what you want the most always, is good quality lumber for furniture, but you don't get it as much as in a managed forest because you haven't produced these things. You get a portion for furniture but there is a portion that cannot be used for furniture because its not the same quality – [it can be used for] chips, either for pulp or for boards, whatever accrues you the best profit. But, this a secondary, it is not the objective [of the project]. *Luis Contreras, General Manager, Forestal Savia, Santiago, November 24, 2003.*

Contreras illuminates the technocentric perspective of the forest company, which believes that managing the forest will improve the forest when extracting higher quality timber is the objective. Through pruning the younger trees, trees will grow with less limbs and therefore produce "clear" timber, which means

[28] See Schmidt et al. (2003) on forest management of lenga.

there are no knots in the wood and of which commands a higher value on the market. In addition, Contreras reminds us of the objective of the project, to produce high quality finished lumber, as opposed to lower valued commodities such as chips or particleboard. The portions of the tree, which do not meet with the standards of high quality finished lumber, are used to produce the secondary products to maximize use of the tree. The overall management goal is to maintain the forest canopy to the best of the manager's ability so that remaining trees are dispersed throughout the landscape as opposed to clumped. The idea is that since wind plays a natural role in knocking patches of trees down and creating the naturally occurring even-aged stands, a shelterwood harvesting method would attempt to mimic this important lenga forest dynamic.

Tierra del Fuego and the Need for Broader Socio-economic Development

The Río Cóndor Project offered socioeconomic development for the 12th region of Chile, Magellan (Magallanes hereafter) Region and Chilean Antarctica. Within the region, there are four provinces: Ultima Esperanza, Magallanes, Tierra del Fuego, and Chilean Antarctica. The capital of the Magallanes region is Punta Arenas and the capital of Tierra del Fuego is Porvenir (see Figure 2, Chapter 1 for map). The project was proposed for the Province of Tierra del Fuego[29], which is broken into three different municipalities: Primavera (pop 1629 in 1992; 1016 in 2002) to the north, Porvenir (pop 5104 in 1992; 5465 in 2002) in the central area, and to the south where the project was located, Timaukel (pop 252 in 1992; 423 in 2002) (INE, 2004). Porvenir is the capital of Tierra del Fuego and the municipality with the most to gain from the initial version of the project such as 600 jobs, the building of a mill, infrastructure development and above all, hope for a better future for the community. Because there were no communities within the Río Cóndor forestlands, workers would be transported in by bus from places like Porvenir and throughout the island. This is common for forestry activities in the province such as the forest project of Forestal Russfin Ltda. (Forest operation just north of the Río Cóndor property) where workers are forced to leave their families for periods at a time and travel by bus to the job site.

The intention of the project was to benefit the region as a whole and more specifically at the local level, in the community of, for example, Timaukel. This rural municipality of Timaukel was in particular need of basic infrastructure such as community-wide access to potable water and sewage system. Although my experience during interviews and research focused on what the project would do for Porvenir and Punta Arenas, the town of Timaukel was the closest in geographic terms to receive benefits. Most of the population, 252 in 1992 and 423 in 2002 (INE, 2002) lived in the town of Cámeron, where sheep farming is common. However, the main economic activity for Timaukel was logging by forest companies Society

[29] For a detailed history of Tierra del Fuego, see Martinic (1982).

Agri'cola and Ganador Cameron Ltda. who control operations predominantly in the area north of the Río Cóndor property, where a total of eight mills were in operation providing over 50% of sawed lenga lumber from the Tierra del Fuego at the time of Trillium's proposal (Forestal Trillium Ltda., 1995). However, the centres of Punta Arenas and Porvenir were in position to benefit the most because they provided services such as mail, financial institutes, government agencies, etc. required for the project and communities to develop. Porvenir was offered the potential of becoming an international showcase of commercialization of fine wood products along with environmental studies and education highlighting the use and management of the forests of Tierra del Fuego (Forestal Trillium Ltda., 1997a).

At the time of submitting the first proposal to CONAMA in 1995, the region represented 1% of the total population of the country and a rate of growth of 0.7% in contrast to the country's average of 1.65% (Forestal Trillium Ltda., 1995). The growth rate in the region was also declining over the previous seven years. The region's economic development at the time of the project depended primarily on resource extraction/mining, cattle/sheep ranching, fishing along with a growing tourism market (Forestal Trillium Ltda., 1995). The region was in need of economic development and infrastructure such as roads, financial resources in education, health care and other services essential for the community.

Meanwhile, the town of Porvenir for example, the capital of the Chilean side of the Tierra del Fuego and a two-hour boat trip from the mainland, was and continues to be a community in need of long-term viable socio-economic and infrastructural development. The government has recognized the urgency for economic activity in Tierra del Fuego and created subsidies to attract industry, which the Río Cóndor project received: Law Navarino grants tax exemption for 50yrs, Decree Law 15 rebates investments on the island and Decree 889 provides rebates for labour utilized from the region and exportation taxes. However, due to it's remoteness, difficult access, relatively small population (approximately 5,000 people) and limited opportunities for today's industrial-oriented development, there had been little interest in making the island home for large-scale economic ventures until Trillium arrived. For Teodoro Valdebenito Riquelme, a local resident and community leader in Porvenir, March 3, 2004:

> Things were getting to the point of desperation here in Porvenir. There was high unemployment, there were just a few of us but still there were a lot of unemployed, there was no future in Porvenir (Porvenir in English means future). Then when they [Trillium] suddenly arrived and our [local] authorities get up on the table and say: 'we have a 30 million dollar project'; we figured out how many inhabitants lived here in Tierra del Fuego, that there are 6,000 of us, divided by 30 million [dollars], and we thought well, something will fall to us. A project that is going to last 20 years, a project that will leave behind a port, a project they were going to build 400 houses for, but they were going to build them as condominiums and they were going to enclose them (with a fence or gate). There were people who said how could they close the houses off that way? I said let them, let them close off their houses, if in the future they will end up opening them, [then] they will leave and Porvenir will be left with 400 houses, let them build, if that means jobs for Porvenir.

The island has had a history of economic activities predominantly in low-value resource-based exploitation. This has included sheep ranching, gold exploration, beaver farming, cattle ranching and more recently a new seafood processing plant. Inherent to each of these industries is a narrow focus on primary production, limited value-added linkages, and most critical, dependency on a fluctuating global economy. As with many resource-based communities in the world, Porvenir epitomizes a community susceptible to boom and busts, but more importantly, Porvenir is subject to the market forces and decision-making from outside the region. This is particularly important to note since the Río Cóndor Project offered much-needed employment, revenues for development and a source of hardwood for the world market. However, despite the socio-economic benefits the project claimed to offer, Porvenir would remain subject to decisions made by Trillium in Washington, US and fluctuating hardwood market prices. In other words, the Río Cóndor Project would have perpetuated Porvenir, and Chile's, position in the global forest economy as a supplier or satellite region subject to boom/bust cycles and dependent on Northern-based consumer markets.

The Río Cóndor Project was a private initiative to foster meaningful and effective change in natural resource use. Designed and employed by Trillium Corporation, it bridged economic development with environmental protection. Measures taken to forestall criticism and reveal the integrity of the company included the Stewardship Principles, the Independent Scientific Commission, Land Steward, and voluntary submission into the environmental impact assessment process. The limited knowledge of the unique landscape and forest biome of the Tierra del Fuego required field studies gathering an extensive inventory of ecological attributes to inform the EIA and landscape level management strategy. However, ISC was criticized for the limitation of the ecological data gathered and how that data was used to formulate an ecosystem-based management plan. Meanwhile, communities of Tierra del Fuego awaited in anticipation for the arrival of the project because of the socio-economic benefits of employment and basic infrastructural development. The Río Cóndor Project fostered both Trillium's and the government's objectives in terms of embracing their ideas of sustainable development and technocentric environmentalism. However, while the project presented Chile with the opportunity to achieve sustainable forestry in Tierra del Fuego, the environmental movement in Chile responded by launching successful initiatives aimed at thwarting the project by challenging Trillium's technocentric form of environmentalism and emphasis on economic sustainability.

Chapter 5
The Río Cóndor Dispute and Environmentalism in Chile

"Trillium was a wolf in sheep clothing." Malú Sierra, National Coordinator/Communications, Defensores del Bosques Chileno, October 3, 2003.

"My simple explanation is that we made virtually everybody unhappy because they felt we set standards too high - local forestry companies were very, very unhappy with us, there was jealousy, North Americans buying up their forests, and in my opinion, we made the environmentalists unhappy because we had answers" David Syre, CEO and Chairman of Trillium Corporation, WA, July 30, 2004.

"Yes, the truth is that we pulled back when we saw that what had been promised was not what was going to happen, we chose not to support [the project] any further and there it stayed." Marta Soto Andrade, Community Leader in Porvenir, Porvenir, Tierra del Fuego, March 3, 2004.

This forest dispute dates back to 1991 when Cetec-Sel initially proposed purchasing property in Tierra del Fuego and unfolds throughout the following 13 years. To discuss this period of conflicting ideas, litigious events, civil disobedience, public protests, scientific studies, institutional decision-making processes, the environmental movement and its internationalized coalition, and international trade agreements, requires simplification of key events and moments for this thesis. What I call the 'technical' issues heard throughout the forest dispute refer to those specific issues or details of, for example, the ecological characteristics or harvest rates as opposed to conceptual or philosophical ideas related to the project. Key topics of arguments/conflicts that played out during this forest dispute focused on the ecological as well as social-economic aspects of the proposed Río Cóndor Project.

Environmental groups were primarily concerned about the ecological sustainability of the project, which is not to suggest that other actors such as COREMA or forest industry members did not question the ecological sustainability, but that the environmental groups were paramount in challenging this aspect of the project. The arguments included a range of technical issues such as lack of sufficient data or ecological knowledge of the property, questionable harvest levels and regeneration rates, the "shelterwood" logging method and the overall fragility of the ecosystem: effects by strong winds on shelterwood-logging method and thin soil conditions. For example:

> In Tierra del Fuego, we have a very special situation. This top soil is very, very thin, 5 centimetres or even 2 in some places. It's a very young soil, no more than 3,000 years old. So, it's a miracle to have top soil here and it is a miracle to have trees on this top soil.

> So you have a cold and frozen rainforest here, extremely, extremely, fragile cause it's been shown that more than half of the nutrients of the forest are in the trees. Less then half of the nutrients are in the soil so the rotation cycle [of nutrients] is very, very slow. It is very important then to avoid this top soil [being] wiped out by the strong winds and erosion and that means [being] extremely careful with what you do, how much you take out. And if there is no scientific knowledge about it, you should apply the precautionary principle, take care, don't do it if you don't know what you are doing, that's simple, and that's the philosophical and technical [ecological details] backstage of this dispute. *Bedrich Magas, Director of IDDEA, Punta Arenas, Feb 24, 2004.*

Highlighting the idea of precautionary principle was fundamental in the position of the environmental groups. The idea of proceeding only if you 'know' the forest ecosystem and its related characteristics challenges Trillium's strategy of adaptive management, which follows along the lines of establishing a base-level of knowledge and then learn and adapt as you proceed. In the latter case, forest intervention would continue to occur regardless of whether sufficient ecological data is known while monitoring impacts of intervention in the ecosystem are performed in a scheduled manner. With the knowledge gained by monitoring as you go, forest managers would adapt management practices accordingly.

Additional issues that emerged throughout the forest dispute included economic elements with respect to concerns from within government, environmental groups and the Chilean forest industry that the lenga trees would be processed into wood chips as opposed to more valued-added products such as the promised finished lumber. In addition, economic sustainability of the overall project was challenged because the projected harvest levels appeared in excess of the actual quantity of viable timber available in the forest due to the lenga's propensity to heart rot. Beyond the ecological, economic and social concerns of sustainable development were issues of non-confidence or distrust in the state's ability to evaluate the project and Trillium's actual intentions with the Río Cóndor Project. For example, questions and accusations were raised about the limited technical qualifications of COREMA's scientific group, while doubts emerged over the actual intentions of the project, particularly given the significant amount of capital invested by Trillium (over $200million US), the voluntary submission to the SEIA process and the failure of a mill and port to materialize as initially promised for Tierra del Fuego. Clearly, one could explore many interesting aspects of this forest dispute.

Through a synopsis of key events or moments of the Río Cóndor forest dispute, this thesis casts light upon the socio-cultural domain of this forest dispute, how different actors adapted or resisted socially constructed ideas of sustainable development and environmentalism and the different initiatives taken throughout the process of achieving sustainable forestry in Chile. In other words, the process of moving from the conceptual ideas of sustainable development and environmental perspectives into a pragmatic and tangible sustainable forest project in Tierra del Fuego shows us valuable lessons in the process of achieving

sustainability. For this chapter, we turn our attention specifically to the environmental movement, their position, and initiatives taken to stop and/or modify the Río Cóndor Project.

The Forest Dispute Builds Momentum

> While Trillium was obtaining the approval of its Río Cóndor Project, environmental organizations from the Magallanes regions, scientists from neighbouring city of Valdivia, as well as national NGOs from Santiago, and the environmental networks became aware of the potential impacts of the project. The scale of exploitation of old growth boreal forests with trees up to 800 years old, in an area that is extremely fragile, was perceived as a major threat to the stability of the forest ecosystem. The environmental movement was extremely concerned for the fate of the remaining boreal forests. Many ecological organizations, as well as Members of Parliament, voiced their criticism of any initiative that could turn the last old growth boreal forest into wood chips (Reyes, 2002, p. 5).

While Trillium was putting together its proposal for what became the Río Cóndor Project, various factors came together for what eventually amounted to a forest dispute unlike any in Chilean history. The Chilean government was institutionally steering towards sustainable development particularly upon signing *Agenda 12* during the 1992 Earth Summit. Environmental organizations, scientists and academics were raising awareness and protesting against mounting environmental degradation particularly in relation to industrial development and its unaccounted externalities of air pollution. Civil society was also raising awareness of forestry-related issues in rural regions in regards to transforming native forests into plantation forestry and woodchips for pulp and cellulose markets in Japan. In addition, many of the Chilean people, organizations and institutions were rediscovering their popular "voice" and political influence during the transition from the military government (1990 onwards), which many Chileans see as the time in which they reclaimed their country. Eventually, Trillium, the state and environmental groups (and affiliations) would converge into one of the most contested natural resource disputes in Chilean history. It not only put Tierra del Fuego on the 'map', but the challenges put forward by environmentalists also tested the legitimacy and sovereignty of the state concerning its commitment and interpretation of the process of achieving sustainable forestry. Consequently, an understanding of the role of the environmental movement in the forest dispute is crucial, particularly as it gained momentum and became a powerful political force in Chile society.

In the early 1990s, environmental movements began to question the ecological impacts of planting non-native species and questioned the rate of substitution of native forests for plantations. The government came under fierce scrutiny since the belief surrounding plantation forestry was its possibility of alleviating exploitation of native forests. Instead, according to Maria Teresa Arana Silva, Forest Engineer in the Technical Studies Department of CORMA, Santiago, November 21, 2003, employing wood-chipping as a

native forest management strategy was believed to be an effective tactic to improve the productivity of the forests and provide higher quality timber products. This technocentric view of the environment reveals insight into how the Chilean forest industry perceives the forests and ultimately determines how and why they are exploited. In particular, echoing Trillium's perspective, intervention is understood in terms of a requirement so that the natural resource will be more productive and 'valuable' as opposed to 'less valued' forests that are left to rot or remain decadent. Consequently, environmental groups challenged and raised awareness surrounding native forest harvesting and the infamous 'astillas' (chips) or transforming native forests into wood chips. If one was to travel to Puerto Montt, Chile, in the early 1990s, it was likely one would see mountains of wood chips awaiting transport to their distant destination of Japan.

The Río Cóndor forest dispute covers nearly 13 years and involves individuals, organizations and institutions from a range of political domains i.e., local, regional, national, international and supranational. The point to realize is that this forest dispute requires examination beyond the Chilean jurisdiction because the ideas, conflicts, actions, and events played out in various regions of the world. In addition, the dispute is perceived by a myriad of people according to their own or respective affiliations' perspectives of the project.

Environmentalism and the Río Cóndor Forest Dispute

The environmental movement in Chile is described as a microcosm of the international movement because many of the same debates are found in Chile (Rojas, 1994). However, the Chilean context has important characteristics that make it unique. "It has emerged within an authoritarian regime, dictatorial context and must address the question of democracy; it has developed under the hegemony of the environmentally concerned scientific community, which displays a rare ability for articulation; it has been deeply influenced by the Latin American debate on 'styles of development'" (Rojas, 1994, p. 95). Rojas highlights an important challenge faced by environmentalism in the 1990s in terms of Chile's successful export-oriented economic model: "It remains a complex task to challenge the legitimacy of a style of development perceived internationally and nationally as a success – a success defined, of course, in terms of conventional economic indicators that pay little consideration to environmental implications" (ibid, p.110).

The movement emerged out of the mid-1980s because of concern over ecological degradation brought on by economic development such as water pollution in the aquaculture industry, decreasing wild fish stocks and the transformation of native forests into plantations (Sara Larrain as cited in LaFranchi, 1998). For Carruthers (2001a), a small number of ENGOs first surfaced in the 1960/1970s with a northern-styled conservation approach followed by the emergence of scientists and activists in the 1980s who faced expulsion from the universities during the military regime. During this time, environmentalists increased their political influence by engaging in oppositional spaces formed by the popular movement, but because the

military government neglected environmental issues and was intolerant of political dissent, environmentalism remained marginal both politically and culturally (Carruthers, 2001a). Following this period is the transition to democracy, which Carruthers argues remains heavily influenced by the military regime and the neo-liberal economic system of organizing society, which atomizes civil society, reduces or inhibits the states relations with social movements, while new environmental institutions perpetuate Chilean political characteristics of elitism and exclusion. However, it was not until the years (1995-97) following the return to elected democracy that the environmental movement establish a strong political position in Chilean society.

In regards to the Río Cóndor Forest dispute, Sara Larrain is reported[30] as stating that the March 19, 1997 Supreme Court ruling (Chile Supreme Court, 1997), which overturned the Chilean government's initial approval of the Río Cóndor project in 1995 (see "Litigious Strategy" later in this chapter) shifted the environmental movement's political position in society. That is, the ruling changed environmental movements position from one that the government recognized as just a group of extreme ecclogical radicals to a legitimate political force. Even more impressive, was that the movement was lead by only a handful of key people:

> I come down here and there is a handful, and I know them, a handful of people with no experience who stood up against a 500,000 acre logging plan that would have been sailed through in any other country and they stopped it, postpone it, postpone it, postpone it, stab it, jam it, jam it, tilt it, knocking it off balance, but never really hitting a good frontal assault. And there was divisions within the defensive coalition to boot that I thought would have crippled any other struggle anywhere else, but Chile just sailed through it -basically because of intransigents, and I know quite a bit about intransigents, but it stopped. It stopped, I couldn't believe it, its unbelievable. *Rick Klein, Executive Director, Ancient Forest International, California, US, interviewed in Pucon, Chile, December 22, 2003.*

There were a number of different organizations involved in the Río Cóndor forest dispute in Chile[31]: Red Nacional de Acción Ecológica/National Network for Ecological Action (RENACE)/National Network of 140 environmental organizations; Defensores del Bosque Chileno/Defenders of the Chilean Forests; Greenpeace South Pacific, Instituto de Ecología Política /Political Ecology Institute (IEP), Comité Nacional pro Defensa de la Fauna y Flora/National Committee for the Defence of Flora and Fauna (CODEFF), Iniciativa de Defensa Ecológica Austral/ Initiative for Ecological Defence of the South (IDDEA), and Fundacion para el Desarrollo de la XII Region Magallanes/Foundation for the development of Region 12, Magallanes (FIDEXII) (See **Table 2** for a brief introduction to these ENGOs). My intention here is not to disregard other contributing organizations to this movement, but for simplifying purposes, I have selected the prominent organizations for reference. In addition, in the early 1990s, an alliance between the groups

[30] See LaFanchi (1998).

[31] Finisterrae is an environmental organization in Argentina and also played a key role in the forest dispute, but this thesis covers only the Chilean context.

was formed to diminish organizational differences in forms of environmentalism, initiatives or priorities and channel organizations' expertise and resources into a single voice. The idea was to form a united front with a common message and position, which for Bernardo Reyes, Director of Ecological Economics Program, IEP, proved crucial in their success (*personal interview, Santiago, Chile, October 10, 2003*). An alliance was formed in the early 1990s as the, "Alianza por los Bosques de Chile/ Alliance for the Forests of Chile" and directed by Nicolo Gligo[32]:

> They [environmental groups] were national and local to Magallanes. Now, what came from this next [was] the necessity of uniting our forces, because each NGO had its own program. But also, and this is very important, some had a degree of dependence on other NGOs from developed countries, primarily the United States, for example, CODEFF with Friends of the Earth, Greenpeace, etc. So each one had this and there was a certain level of competition. There was a certain amount of "don't butt in because this is my territory", so for me the creation of this alliance was fundamental. The creation of the Alliance helped us to send an incredibly strong signal. *Nicolo Gligo, Director of Alliance for the Forest of Chile, Santiago, November 19, 2003.*

[32] Nicolo Gligo, up until around 1998, worked in Comisión Económica para América Latina (CEPAL)/Economic Commission for Latin America and the Caribbean (ECLAC) and as coordinator in Programa de las Naciones Unidas para el Medio Ambiente (PNUMA)/United Nations Environment Program (UNEP) of research and projects whose mission it was to incorporate environmental issues in the analysis of development in Chile.

Table 2 Introduction to key environmental organizations in the Alliance for the Forests of Chile

Greenpeace South Pacific (no website available)	Regional office; licensed by Greenpeace International to use name "Greenpeace"; contributes financially to Greenpeace International, campaigns locally, participates in international campaigns, and helps shape the international campaign program; membership from region[33].
RENACE http://www.renace.cl/	Founded in 1988; Network of 140 non-government organizations (NGOs) working on environmental issues throughout the country; affiliated with national and international organizations.
Defensores del Bosques Chileno http://www.elbosquechileno.cl/	Founded in 1994; NGO with objective of conservation and defense of native forests and educating public of forest ecosystems; non membership-based; affiliations with national and international organizations.
CODEFF http://www.codeff.cl/	Founded in 1968; NGO with mission to conserve nature, environment and promote sustainable development; National membership base of 4600 members; governed by membership -- members vote for directors and mandate of organization; affiliations with national and international organizations.
IDDEA (no website available)	Founded in 1989; Grassroots; no official organization or membership – people of Punta Arenas area engage in activity when needed. Mandate to ensure environmentally sound use of natural environment; objectives include promotion of dialogue, litigation and environmental knowledge; affiliations with national and international organizations.
IEP http://www.iepe.org/	Founded 1987; NGO with objective of engaging civil society towards creating a more ecological and sustainable society; activities include: education, campaigns, publications, legal actions, information exchange at local, regional and national levels and provide alternative development strategies to make Chile a sustainable society; four key areas of interest: education for sustainability, environmental justice, construction of environmental citizenship and globalization, commerce and environment.
FIDEXII http://www.fidexii.cl/	Founded in 1976; NGO; regional based participation and scope; mandate to integrate people into the development of the region and provide services to those sectors of society in need of help.

(see website links for more information – all retrieved February 1, 2006)

Not unlike environmental movements in the North, the diversity of the Chilean movement is important to understand since "environmental movements" in general tend to be described as an homogeneous unit or having the same position, strategy and set of objectives. Describing the movement as a homogenous entity is inaccurate. Gligo explains above how uniting the movement was his goal, but also a tremendous challenge since each group has its own "territories" or issues of concern and in some cases, linked to North American ENGOs, who may or may not be influencing campaign strategies or providing funding to undertake certain objectives in Chile.

For a sense of the behaviour and diversity of environmental NGOs, Carruthers (2001a) provides a helpful synopsis of an organization's political characteristics. He references Taylor (1998) for explaining that the consequences of social movement disintegration in the 1990s in Chile has resulted in three types of organizational strategies: co-operators willing to compromise and work with the Concertación; the intransigents that take principled and non-negotiable positions; and lastly, the critics that are found in the

[33] Greenpeace International leads and coordinates international campaigns, monitors National and Regional office performance, and provides global services to national and regional offices. It is governed by the Board of Stitching Greenpeace Council (SGC), which appoints the Executive Director of Greenpeace International. The SGC also approves the annual budget of Greenpeace International and its audited accounts and appoints Trustees from National and Regional offices who elect 7 members of the SGC Board of Directors (for more information about Greenpeace International and National and Regional offices, see http://www.greenpeace.org/international/about/how-is-greenpeace-structured retrieved February 6, 2006).

middle of these two positions. Carruthers (2001a) claims environmentalists tend to define themselves similarly since these categories described are not fixed, but instead illustrate a blurring of boundaries separating between, for example, the co-operators and critics. Although, he does categorize the types or sectors of environmentalism found within the movement in terms of: conservationists, environmentalists, and ecologists[34]. Bernardo Reyes, Director of Ecological Economics Program, IEP, provides an additional explanation of the differences in identity:

> When I say "we," I might be talking about one specific plan within the environmental movement, which relates more to the brand of ecologism as opposed to environmentalism or as opposed to conservation. The more conservationist approach works very close and sometimes even within close relationship to institutions and sometimes even funded by Shell [corporation] and others. Then, there are a few environmental organizations as well, not too many, for example, Casa de Paz also funded from Shell and other corporations, and SIGMA (Sistemas de Gestión Medio Ambiental/System of Environmental Management) is a very, very long, [long history] environmental organization [which] has an environmentalist perspective. They really believe in the power of economic development and progress so it's very positive thinking in terms of technology and science. On the other hand, you have groups like IEP, RENACE, Latino Americano Conflictos Ambientales, Greenpeace, which are normally quite reluctant to endorse the development model pursued by government. They say there is [something] extremely wrong with this development model, not just because it does not provide for safeguarding for future needs of future generations, [but] simply because they are blind to the concentration of the wealth and power that is taking on certain development model[s]. And also because they are selling out, selling out through extremely complex processes and methods that they were supposed to protect. *Bernardo Reyes, Director of Ecological Economics Program, IEP, Santiago, October 10, 2003*

In summary, within the scope of the environmental movement, the conservationists "practice accommodation and moderate criticism" while the environmentalists "are more explicitly policy oriented, some reformist, others more critical" and ecologists "conceive the environmental crisis broadly, to encompass issues of social and ecological justice" (Carruthers 2001a, p.p. 351-352).

The Position(s) of the Environmental Groups

As the Alliance emerged into a political force in Chilean society, it, and preceding environmental groups opposed to the Río Cóndor Project, drew upon economists (e.g. Vera 1998 and 1999) and members of the scientific community whose expertise in forestry and ecological issues helped shape the arguments

[34] For this thesis, the categories described above refer to a break down, or sub-categorization, of environmentalism within the environmental movement itself as opposed to the broader spectrum of eccentric and technocentric forms of environmentalism discussed in Chapter 2.

put forward[35]. For example, Vera (1999) estimated that Trillium would receive up to $300 million in subsidies over 35 years from the government for operation costs because of Law Naverino and others. In addition, the movement joined forces with parliamentarians discussed later in this chapter under the "litigation strategy." The main position of the Alliance was a single-issue-oriented counter-hegemonic position that they were *not against* logging in the Tierra del Fuego, but that if logging was going to take place, you need sufficient ecological data to make it ecologically 'sustainable'. Consequently, they advocated for logging in secondary forests and preservation of the remaining "virgin" forests:

> We thought the Trillium project could be done on secondary forests. We wanted above all to preserve the virgin forests. We argued that for an environmentally sustainable project, you had to know about the ecosystem profoundly and Tierra del Fuego was completely unknown. We argued that if you are going to do rational management, which is sustainable and adequate from an environmental point of view, you do not only need to know about the lenga, you need to know the behaviour pattern of the ecosystem, and that, they had no idea. *Nicolo Gligo, Director of Alliance for the Forest of Chile, Santiago, November 19, 2003.*

Whereas Christian Miranda, ecotourism operator in Tierra del Fuego, discussed earlier the limitations of the data gathered in the ISC study, Gligo provides a useful example in relation to the forest and how the type of data remained narrowly focused. In particular, Gligo talks about how the ISC focused on the biological characteristics of the lenga species and not on the interconnected characteristics of the lenga and ecosystem dynamics. For instance, Gligo identifies two main areas not studied in the Trillium EIA: the issue of the nutrient cycling (recycling of energy between the trees and the ground) in the forest and the regeneration of lenga in relation to available light needed for growth (see Appendix IV – "Chapter 5" for further discussion by Gligo on this matter). Again, we see the issues of compartmentalization and reductionism in the ecological data gathered by the ISC research. Both Gligo and Miranda insist on a more 'holistic' analysis where knowledge of the forest moves beyond an inventory of ecological components to how they interconnect and operate as a system.

As far as exploiting the forests, many of the interviews I conducted revealed that environmental groups were against logging in the Tierra del Fuego, but this did not mean an outright preservationist stance; instead, the rate of logging cannot be done according to the level of intensity of the proposed Río Cóndor Project:

> But also, when one arrives there, the beauty this landscape has really confirms [or affirms] and leads to the conviction that this is a unique forest on the planet and that they are the last forests at the ends of the earth and that it is totally and completely misguided to

[35] Additional sources of information utilized by the environmental movement included a study of the Río Cóndor Project produced by the French Government in 1995 who, commissioned by CORMA, raised doubts pertaining to its ecological sustainability (see Vanniere & Maurette, 1995). (For a complete account of all sources of information/reports surrounding the Río Cóndor Project utilized by the environmental movement, see Gligo, 2002).

> intervene in them intensively, not just because of the damage that the logging activity would produce causing the loss of x number of forest hectares but also [because of] what would eventually happen to other industries, such as primarily tourism, and what fishing, small-scale or industrial fishing could become. So that when one realizes how fragile it is. And I learned this through books because I had to study to carry out the campaign, but when you get there and see this marvel of a forest, it's very easy to see that when the project starts operating intensively, all this landscape will disappear and that it's not possible that any measure, geological or otherwise, can guarantee the public, that these forests will remain unaltered. *Maria Luisa Robleto, Campaign Director, Greenpeace South Pacific, Santiago, November 3, 2003.*

Malú Sierra, National Coordinator, Defensores del Bosques Chileno, Santiago, October 3, 2003 expressed a similar perspective in regards to the intensity and "sustainability" of the Río Cóndor Project: "We thought about some sustainable management for the lands. We don't think that the forests are only there to be seen. Those sub-Antarctic forests are very poor in production, so it is better to leave them alive. We want sustainable management, but *sustainable* management. One tree in one hectare, maybe and maybe tourism and other things" (emphasis added to reflect tone of Sierra's voice in interview).

Often when I asked whether environmental groups supported logging in Tierra del Fuego or not, the answer was 'yes', but only if all the ecological information is known about the ecosystem and that a project be done on a much smaller scale. "The only way that this ecosystem could be exploited is by treating the wood [carefully], by doing selective logging, and also by taking the timber out by air...because logging roads and intensive exploitation are really a, they are a wound to the earth, a very large wound to the earth" *Maria Luisa Robleto, Campaign Director, Greenpeace South Pacific, Santiago, November 3, 2003.*

The issue of whether any logging in the Tierra del Fuego was acceptable to environmental groups also proved to be a slippery domain rather than a definitive position. The elusiveness of this issue is not surprising considering the diversity of environmental groups, but it certainly became a key point raised by the second land steward of the project for Trillium, Dr. Jerry F. Franklin:

> This difference in this position on logging in the Tierra del Fuego was often lost throughout the dispute as different perspectives, especially those from Trillium, interpreted the environmental groups' message as no logging, *period.* They didn't want any trees cut, flat out. So, there were a lot of issues that could and should have been raised, but fundamentally, it wasn't about modifying the project or adjusting the project, [they wanted it] stopped. The interesting thing about it of course, because it was a Yankee company down there doing it, it was really easy to nail. All kinds of shit goes on Tierra del Fuego in the forest, all the time, they have trashed both sides of the border. But it is done by indigenous companies. So this was a target, it was a big project, it was a Yankee company, ah, wow, lets grab'm by the nose and just hang on and kick their ass, and they did. But the reality was they did not want any trees cut. They wanted it all preserved. *Dr. Jerry F. Franklin, Second Land Steward, Forest Ecologist and Professor at University of Washington, US, July 19, 2004* (emphasis added to reflect the tone of Franklin's voice in interview).

Franklin's experience reveals that from his perspective, the "environmentalists" were flat out against any cutting of trees at all. He also raises the issue of a foreign company versus a Chilean company exploiting the forest in Tierra del Fuego. For instance, Forestal Russfin Ltda. (Russfin hereafter) is a forest company currently harvesting just North of the Río Cóndor Project and from discussions I had off the record, their harvested rates are higher than natural regeneration rates; they will exhaust their timber source within the next 7-10 years. However, the environmental movement chose not to focus their attention on their activities. According to *Bedrich Magas, Director of IDDEA, Punta Arenas, February 26, 2004*, the reason environmental groups did not target Russfin was because they were a much smaller operation compared to Trillium's proposal and that limited resources (e.g., financial) meant that they had to choose which campaigns they would carry out effectively. As for environmentalists in North America, when asked why North American environmental groups did not target Russfin, *Pat Rasmussen, Forest-Alliance Coordinator, American Lands Alliance, WA, US, June 9, 2004* responded with the statement that she had not heard of Russfin before.

For Wayne Schwandt, Director of Latin American Operations, Trillium Corporation, the "environmentalist" problem links back to the issue of not having sufficient ecological data and which resulted in an uncompromising position by environmental groups:

> What it comes down to is, if it is conservation on the part of the environmental group which is "since we don't know the outcome, let's not do anything" and so the argument then becomes well, prove to me that what your going to do will not harm the environment – can't be done. So, it's a logical inconsistency, you can't prove the negative. So nothing gets done and that's the position that they take, it is the most conservative [perspective] rather than an approach that says, oh, well, lets take the best we know right now scientifically and management wise, apply it, monitor it, and see how we're doing - adaptive management. If you don't do that, then you end up with what's happening down there right now, its basically off limits and people that don't have their livelihood or their futures involved in it are up here in our comfortable homes and lifestyles and say, "look what we saved". *Wayne Schwandt, Director of Latin American Operations, Trillium Corporation, Bellingham, WA, July 7, 2004.*

The final remark raises a common criticism of environmental groups particularly in North American as they travel, usually from urban centres, into the rural communities and bring their ideas and opinions over how forests are to be exploited or not. In Schwandt's example, I believe he is specifically referring to environmental groups from the North who campaigned against the Río Cóndor Project and therefore do not face the socio-economic reality of not having a job now that the project is dead.

Luis Contreras, General Manager, Forestal Savia, Santiago, Chile, explained his interpretation of the conceptual framework of this dispute and furthering the position that the environmental groups were

against any logging what so ever. He presents the framework as a hierarchical level of technical issues and higher or more abstract philosophical positions:

> The discussion here is not whether the volume is such and such or the areas to be cut per year is to be such and such, no, in the end, the bottom end of the discussion here is that for some people, its not acceptable to cut any tree. We are just talking between not acceptable to cut any trees versus to use sustainable harvesting, that's the bottom question. There are groups, environmental groups, that go for the first alternative, for them, it is not acceptable to cut a tree. They will use whatever argument they can get, to support reaching their objective, which is to avoid the cutting of any tree (excuse me, not all environmental groups are saying that, for example, CODEFF) so then the discussion really is a technical discussion, I mean, acceptable technical discussion whether something is appropriate or not appropriate, but to be involved in a technical discussion when you know that the framework is not a technical, it's a political, philosophical perspective is completely different to me. *Luis Contreras, General Manager, Forestal Savia, Santiago, Chile, November 24, 2003.*

The Campaign

The environmental movement in Chile formulated a campaign that spatially penetrated the national level as well as into the international. Although, their ideas of protecting biodiversity, preserving the forests, demanding additional ecological information, offering ecotourism as an alternative and all the while implicitly critiquing the development system for Chile, were not always perceived in these terms by other actors as discussed above. Environmentalists demanded a guarantee that the project would protect the ecological characteristics of the forest and thereby ensure ecological sustainability. However, the movement's overall initiatives focused within the Chilean domestic sphere and after the 1998 court ruling, discussed below, expanded its reach to include ENGOs from North America. This is not to say environmental groups in particular such as Greenpeace South Pacific were not already seeking to include assistance from ENGOs beyond Chile's borders from the start:

> We designed a campaign with the message that we supported the protection of the forests of Tierra del Fuego...and that the Trillium Project did not guarantee sustainability and we worked at a national level with these organizations that I mentioned, we worked in the region, also with the organizations that I already mentioned. We worked in Argentina, in Ushuaia primarily with a foundation called Finisterra run by a woman named Graciela Ramacciotti. This had the full backing of Greenpeace International and there was a campaign coordinated with the U.S. office. At first we worked with the offices in Seattle and in San Francisco, but in 1996 they closed the office in Seattle, then we worked only with San Francisco and then the Vancouver office was included and also the Washington D.C. office. *Maria Luisa Robleto, Campaign Director, Greenpeace South Pacific, Santiago, November 3, 2003.*

Overall, the main strategies employed by the environmental movement in Chile focused on raising awareness, civil disobedience and litigation. Raising awareness about the Río Cóndor forest project took place through communication strategies via the media (e.g., newspapers, Chile Information Project: Environmental Report—CHIP-ER news, Internet/e-mail) or organizational publications (e.g., Voces del Bosques[36]), which coincided with employing acts of civil disobedience:

> Yes, we wrote press articles, and I gave a lot of interviews on each one of these issues because Trillium was the most important conflict in the last 5 years of the last century. In addition we also carried out a lot of demonstrations and I was arrested 2 or 3 times. [For example of a protest in front of the Presidential Palace] the police grabbed us by force and we didn't put up any resistance. We just let ourselves fall to the floor and then they dragged us. [The demonstrations occurred] mostly at La Moneda and also in front of where the book fair is, Mapocho [metro] station and in front of CONAMA. *Maria Luisa Robleto, Campaign Director, Greenpeace South Pacific, Santiago, November 3, 2003.*[37]

The movement's strategy also included meeting with Trillium in the United States on three occasions, "with the backing of these three offices [Greenpeace San Francisco, Vancouver and Washington, DC] we held three meetings with Trillium in the U.S. and our goal was to propose to them a resolution to the conflict, but one that would begin with diminishing the intensity of the exploitation of the forest" *Maria Luisa Robleto, Campaign Director, Greenpeace South Pacific, Santiago, November 3, 2003.* However, with multiple initiatives employed by the environmental movement, litigation was key in establishing their political legitimacy. In particular, as stated earlier, Sara Larrain identifies the March 19, 1997 Supreme Court ruling as a key event in legitimizing the movement as a powerful actor in Chile.

Litigious Strategy

The first EIA for the Río Cóndor Project was submitted in 1995 and later approved by COREMA (vote was 17-1) the following year in April despite COREMA's technical committee's initial rejection because the EIA did not meet with Trillium's Terms of Reference and lacked adequate environmental information (e.g., insufficient inventory of existing trees) for approval. Following this ruling, certain members of parliament, along with local and national environment groups (collectively known as El Movimiento Pro-Defensa del Medio Ambiente de Magallanes or Pro-Defense of the Environment of Magallanes Movement in the litigation initiative) launched an effective and lengthy legal battle, which essentially stalled the launching of the Río Cóndor Project.

---

[36] Voces del Bosques and Defensores del Bosque Chileno in general focused on challenging the values held in Chilean society (Adriana Hoffman, National Coordinator, Defensores del Bosque Chileno, Santiago, October 6, 2003).

[37] For full interview excerpt, see Appendix IV and section on "Environmental Movement and Civil Disobedience."

Parliamentarians Guido Girardi (PPD) and Antonio Harvath (PPD) working with the Pro-defense of the Environment of Magallanes Movement launched the legal strategy after COREMA's controversial approval of Trillium's 1995 EIA. The collaborators issued a complaint in the Punta Arenas regional court that questioned the legitimacy and legality of the decision made by the state institution, COREMA. They were not successful and the court ruled in favour of the state. This defeat sent the partnership to the Supreme Court of Chile during that same year where the collaborators also argued COREMA's decision was arbitrary, since it was not based on legal standing because the regulatory framework of Law 19,300 had not yet been enacted. While other legal cases were also put forward such as actions against the state over the sale of one of the lots of the Río Cóndor property for the reportedly low price of $42 million or $51/acre, the action taken against COREMA's approval of the project proved to be most significant[38].

A key tactic in the legal actions taken at the Supreme Court was the linkage of an ecological issue to the social domain as a human rights issue. This was pursued through their appeal for constitutional protection. The Constitution of 1980 states:

> "Article 19: The Constitution guarantees to all persons:
>
> 8.- The right to live in an environment free from contamination. It is the duty of the state to watch over the protection of this right and the preservation of nature. The law may establish specific restrictions on the exercise of certain rights or freedoms in order to protect the environment;"[39]

The constitutional right for individuals to an environment free from contamination is not unique to Chile since other countries in Latin America have similar rights. What is interesting in the Río Cóndor Forest dispute in Chile is the legal entitlement for any natural or legal person to appeal to the state when they believe their right is infringed upon, regardless of whether the individual is directly affected or not:

> From the doctrinaire point of view, the first is a very valuable legal process because it interpreted and established these constitutional guarantees that exist in our constitution to an important degree. Specifically, the Supreme Court issued ruling [case law] that has not been overturned, stating that the right to live in a pollution-free environment is a right assigned to the theory of diffuse interests. The theory of diffuse interests postulates that when certain collective rights exist, all members of that collective are affected when those rights are attacked. For this reason, any one of the members of the collective has the status and ability to resort to the court even when he cannot claim having been directly affected. In this way, this ruling, which is from 1997, is very advanced and extremely revolutionary, not only within the application of Chilean constitutional law, but also at the international level. *Ferdinand Dougnac, Prosecuting Attorney for environmental groups*

---

[38] This claim was eventually settled by the Chilean State requiring Trillium to pay $826,000US to compensate for the low price paid for 71,000 hectares of public land, which Trillium was prepared to pay when the project was in operation and capital became available.

[39] See http://www.georgetown.edu/pdba/Constitutions/Chile/chile.html.

and parliamentarians, and President of Fiscalia del Medio Ambiente (FIMA), Santiago, November 25, 2003.

Protection recourse is filed against a project or activity regardless of whether the individual suffers direct damages or is even directly affected. However, the legal parameters of this article are not the focus of the thesis whereas the linkage of the ecological to the social domain is significant.

On March 19th, 1997, the Supreme Court of Chile ruled in favour of the parliamentarian's and environmental groups' appeal in a crucial ruling, which stated COREMA's approval of the first EIS was "illegal and arbitrary." The Court ruled that COREMA's approval was "illegal" because regulations for the environmental impact assessment (Law 19,300) process were not yet approved by the government. As for the "arbitrary" ruling, COREMA was faulted for not abiding by their technical committee's findings, which had concluded that the project did not comply with environmental requirements. This was a key decision for Chile and the state's liability for upholding conservation responsibilities and protecting their natural resources. For our purposes here, the linkage to a human right indicates two things: the first is the effectiveness as a strategy in stalling the forest project, but more important, it shows the necessity for environmental issues to be linked to social aspects.

Environmental problems directly relate to social issues, so within the context of Chilean law we see the link made between "an environment free of contamination" as a human right and therefore broadening the scope of the argument from merely an ecological aspect to a social one. Environmental groups' arguments often specifically address ecological issues such as preserving wild, virgin, or majestic spaces for the survival of the planet. While these issues are essential in contributing to social and ecological change on earth, the social domain must not be overlooked, particularly as people's livelihoods, health or general standard of living are at stake, as in the case for residents of communities in Tierra del Fuego urgently in need of socio-economic development. The litigious strategy proved very successful because the link was made between people's lived social realities and environmental realities. Section 13 of the March 19th, 1997 resolutions states:

> [T]he right to live in an environment free of contamination is a human right of Constitutional hierarchy, which presents a double character: public subjective right and public collective right. The first aspect means that its exercise corresponds, as provided in article 19 of the Political Constitution to all persons, being the duty of the authority to protect that right through the regular legal suits and through the constitutional protection claim. And, in respect to the second aspect of the right in analysis, the collective public right, this is meant to protect social rights of a collective character, whose defense is the interest of the community as a whole, in the local level as well as in the national level, to all the country, because the very basis of the existence as a society and as a nation are understood, and due to the fact that in damaging or limiting the environment and natural resources, the possibilities of life and development of the present and future generations

> are also limited. In this sense, the safekeeping of these rights are in the interest of the entire society because it affects a plurality of parties that are placed in the same factual situation, and whose damage, despite the fact that it carries an enormous social harm, does not cause significant harm that is clearly appreciated in the individual sphere (Chile Supreme Court, 1997).

In particular, the second aspect explicitly links a human right, the right to live in a safe environment, with the right of defending the community and nation as a whole. Fernando Dougnac, President of Fiscalia del Medio Ambiente (FIMA) -- Chile's Environmental Public Prosecutor Office and lawyer for Pro-defense of the Environment, explains that the internationalization of the law not only brought an increased awareness of the law associated with environmental issues, but acknowledges that laws pertaining to environmental protection are underdeveloped as compared to international human rights law:

> All of this has led to the existence in Chile of an awareness both of the internationalization of the law, of conflicts, and therefore of the internationalization of environmental issues. Now, from the environmental point of view, at this time environmental organizations were determined to establish a very direct relationship between the right to live life in [a] pollution-free environment, free as a human right. The advantage this has is that international law on human rights is more developed than international law on environmental protection. *Fernando Dougnac, President of Fiscalia del Medio Ambiente (FIMA)- Chile's Environmental Public Prosecutor Office and lawyer for Pro-defense of the Environment, Santiago, November 25, 2003.*

Trillium's response to the March 19, 1997 ruling was a return to the first EIA submitted in 1995 to redesign and improve for a second voluntary submission into the SEIA process. An important factor here is that once again, Trillium voluntarily submitted the second EIS. For some, such as Gabriel Rodriguez, Trillium operation manager in Punta Arenas, re-submitting a second EIA was a mistake:

> [In] 1997, the Supreme Court said that the approval was illegal and arbitrary. And then the company had two chances: one was to go again for the new EIS [EIS refers to Environmental Impact Study and is equivalent to EIA or Environmental Impact Assessment] and the other one was to say, ok, we will work under the law. We really don't need to get involved again with the EIS and all the things that it means, especially with the press and all those things [e.g., public scrutiny]. The law permits you to cut 1,000 ha without an EIS, so, the company had the two chances at that time: cut under 1,000 ha, or even have two companies cutting 1,000 ha each to get the same amount of hectares that the company was projected to use, or, to go again with the EIS and follow all the steps. At that time I prefer the second one, just cut under 1,000, do it well, do it exactly how we were saying, how we were doing it, but just under the law without going to the EIA and all those things. But the company said they prefer to go to the second EIA. *Gabriel Rodriguez, Trillium operation manager in Punta Arenas, January 22, 2004.*

Rodriguez raises an important point here, which is that law 19,300 does stipulate that a forest project in the Tierra del Fuego region with harvest rates greater than 1000 ha/yr requires an EIA. Rodriguez is advocating designing a harvesting schedule that does not exceed 999 ha/yr and avoid the EIA process all together.

Trillium management instead decided to submit a second EIA and continue with their objective of gaining credibility in the country.

The second submission of the EIA responded to criticisms from COREMA and environmental groups about inadequate ecological information by including new cartographic information (e.g., increased scale of cartography and use of GIS) and ecological inventory data. However, for Mauricio Doberti, ex-Trillium Forest Engineer/Manager of Río Cóndor Project, Trillium had already gathered considerable information pertaining to the forestlands in the Tierra del Fuego. For Doberti, the government of Chile had never contributed to the gathering of ecological or cartographic data in the region and therefore Trillium was responsible for providing the only data available. As a result, there was not a "baseline" for COREMA to contrast judgement against whether Trillium's data was sufficient or not:

> Yes, but that is the point, COREMA objected and the company didn't pressure back because although it is true that COREMA can reject [the information in the study], [this] is the only existing information about this issue (ecological data Tierra del Fuego) in the country. The country [Chile] has never bothered to gather ecological information about this region. That is, Chile does not have official cartography for Tierra del Fuego, much less inventories. Their [COREMA's] assumption was always that the information wasn't valid, that it wasn't representative, but nobody knew what information was representative. *Mauricio Doberti, ex-Trillium Forest Engineer/Manager of Río Cóndor Project, February 23, 2004, Punta Arenas, Chile.*

Trillium improved inventory and cartographic details and resubmitted their second voluntary EIA in September 1997. This time though, CONAMA's technical committee granted approval but with 100 conditions that Trillium had to abide by if they were to continue with the project. For example, one of the conditions was an environmental insurance, which was a precedent setting policy in Chile and forced Trillium to guarantee that they would safeguard the ecosystems through the management objectives. Trillium was required to provide a guarantee of capital based on each hectare cut, which would be paid to CONAMA in the event Trillium aborted the project or did not ensure ecological protection. "One of the conditions agreed upon for this project was the contracting of an insurance policy in case it turned out that the regeneration wouldn't be sufficient. In that case, the state would have to reforest the area using monies from the insurance" *Maria Christina Lagos, Manager of SEIA, CONAMA, Punta Arenas, February 18, 2005.* Other conditions included independent monitoring and measures to protect flora and fauna on the property and further ecological protection.

CONAMA approved the second EIA in May 1998 with the conditions attached; Trillium responded with an appeal against CONAMA in July of 1998 and claimed the environmental insurance as an unconstitutional infringement on property rights and equal protection under the law. However, Trillium later cancelled their appeal soon after filing when they learned that the Chilean Supreme Court ruled in Trillium's

favour on an earlier court challenge. This earlier ruling was based on the Supreme Court's decision over whether COREMA's 1998 approval (with 100 conditions) was also "illegal and arbitrary." The parliamentarian's appeal arrived in the Supreme Court after the Punta Arenas courts ruled earlier that the parliamentarians did not submit their appeal in time and therefore ruled against their claim. The parliamentarians went to the Supreme Court and were defeated when the Supreme Court upheld the regional court decision in Punta Arenas. The Supreme Court made it clear that their ruling could not be appealed and that the decision was not based on the technical elements of the project or the different expert opinions (Langman, 1998). Trillium interpreted this moment as a turning point for their project and in the following summer of 1999/2000 began cutting approximately 500 hectares.

Additional legal challenges were also underway or on the horizon by parliamentarian and/or environmental organizations such as their claim that the sale of the land was unjust and unacceptable for Chile. The litigious strategy was being used in every opportunity it could to stall the project. The litigious strategies not only played a key role in stalling logging in the Tierra del Fuego, which did not bode well for the large-scale forest project dependant on external investors for capital, but it also indirectly forced the institutions to improve the ecological aspects of the project. The lack of activity in the Río Cóndor since the official and final approval in 1998 lead many people I interviewed to enquire whether I knew what Trillium was doing and what they were going to do.

Trillium's next move did not come until 2000 when they approached CONAMA to discuss a proposal for a new management plan. The plan did not include harvesting lenga and instead the recovery of already fallen trees, adopting a carbon sequestrion program, which involves protecting forests in return for carbon credits in conjunction with the Kyoto Protocol, and lastly, they also wanted to pursue ecotourism. However, Trillium never did formally submit an EIA proposal and the new management plan never materialized. The next significant public statement to my knowledge came with Trillium delivering the 'certificate of termination' of the Río Cóndor Project to CONAMA in Punta Arenas on February 16, 2004[40].

From the litigation, we begin to identify key oppositional actors; the environmental organizations and parliamentarians, but we also find criticism from within CONAMA. The government of Chile, particularly under President Frei, gave full support to the project and endorsed the opportunity for development in Tierra del Fuego. The Aylwin administration, the party in power during the introduction and approval of the project claimed that it would provide a great benefit to Chile and economic development, which continued to remain priority over conservation. However, for agencies or departments of the state to be allowed to voice concern

[40] For more information, see La Prensa Austral at the web link: http://www.laprensaaustral.cl/lpa/noticias_anteriores.asp?id=9762. Retrieved October 24, 2004.

over the project, particularly during the transition from the military dictatorship, is an important factor to recognize.

Skepticism

While CONAMA raised technical concerns pertaining to ecological aspects of the project, people from other state departments such as CONAF raised similar ecological concerns as well as questioning the actual intentions of the project in the first place:

> We saw a lot of inconsistencies in this project that made us at least doubt the project, what was going [on] behind this [project]. Many times when you get permission, according to environmental impact assessment, you have a resolution. You can sell this project to another company and then you get profit without investment or without working with the forest, provided this forest is going to have a good yield, useful wood, things like that. That is the system [that] is very popular in mining companies. You buy a mine, make three or four studies that explain that there is more gold for instance in that mine than in the time that you bought it and you sell without more investment, only with that study. You can sell the mine for higher prices...Something more was there [with the Río Cóndor forest project] and they [Trillium] were risking a lot of capital -that was the second suspicion. They could disappear, declare bankruptcy or things like that, disappear and leave the forest in a worse condition where the state has to invest in rejuvenating the forest. *Carlos Noton, Environmental Coordinator 1994-98, CONAF, Santiago, November 26, 2003.*

Based on experiences from the mining industry, Noton speculated that the Río Cóndor, once approved with an environmental impact assessment, could fall subject to the same investment scheme of 'flipping the land' common in the real estate industry. Secondly, the amount of capital at risk by Trillium attracted Noton's attention since the company, instead of 'flipping the land', could simply declare bankruptcy after a certain point in the project when it suited their financial objectives. Overall, the project raised concerns since the available timber simply did not match the quantity of timber required for the industrial project. "We saw that they had a very huge industrial [project] to use the wood...the kind of saws, the sawmill, the plants. And the forest, you look at the forest and it is impossible to get all this kind of material to feed the industry...the [industrial plan] was unbalanced" *Carlos Noton, Environmental Coordinator 1994-98, CONAF, Santiago, November 26, 2003.*

The imbalance in harvest rates versus actual available timber in the forest shaped much of Harald Schmidt's, Forest Engineer and Professor at University of Chile, Santiago, position on the Río Cóndor Project:

> They [Trillium] were mistaken, this level of logging was absolutely not sustainable. It simply didn't exist. They said we are going to log in this way, and then they calculated the surface and arrived at 2,700 hectares a year. There are scenarios that vary between 2,300 and 2,700, but that's more or less it. And this [level of intervention] in that [eco]system was not sustainable...They go out and say, my forestry system is this, and

> that was fine. They continued to do the analysis, 'I have 100,000 hectares of productive forest,' 'this is my rotation,' they calculated a rotation that to me is a bit low, and this rotation then, let's say now, that it's 100 years, then this means that in reality, if I really want to do it in a sustainable manner, I have to take this 100,000 hectares and I have to divide it by 100 and this gives me 1,000 hectares/yr, and they arrived at 2,700 hectares/yr. *Harald Schmidt, Forest Engineer and Professor University of Chile, Santiago, November 13, 2005.*

According to Schmidt, his prediction proved correct when Trillium began small harvesting levels in 1999-2000: "What essentially happened is that they had their forests and they harvested around 400 hectares. They [were] in Tierra del Fuego, they bought sawmills, they processed the saw logs in Punta Arenas, and the yields, or the volume that they expected was 230 cubic meters of saw logs per hectare, but in reality, the yield was around 50 cubic meters. That's what was done and these yields, they weren't sustainable" *Harald Schmidt, Forest Engineer and Professor at University of Chile, Santiago, November 13, 2005.* Sustainability for Schmidt is linked to the production levels of lenga and if they were not high enough to feed the industrial component of the forest project, then the project is deemed unsustainable and would economically fail. During the interview, Schmidt referred to the project as a 'fraud' since the amount of timber available could not satisfy the industrial objectives. For Schmidt, all the other environmental issues or contested topics are secondary to the overall un-sustainability of the project in the first place:

> They calculated that if I have this volume [560,000m^3], I obtain these yields and then they did a calculation of what volume was sustainable and here is where they were mistaken...therefore, from a forestry point of view, they were doing [the calculations] well, the only thing is that if the production [of timber] had been less, they would have failed economically. This is the problem, the rest is secondary, you can have all the luxury [you want] of doing environmental studies, but these are secondary aspects. If it was being done well from a forestry point of view, then the probability of ecological problems are a lot less. *Harald Schmidt, Forest Engineer and Professor at University of Chile, Santiago, November 13, 2005.*

Various people, including the environmental movement, drew upon Harald Schmidt's conclusions to argue that the estimated harvest rates of the company's EIA proposals would result in over cutting particularly when compared to the industrial plan for processing the timber[41]. The main concern was that the amount of timber required to feed the industrial plant was not physically available in the forests mainly due to the percentage of heart rot commonly found in lenga trees. This reality puts sustainability into question not only in ecological terms, but in terms of economic sustainability as well. The basis of Schmidt's perspective is challenged by Gabriel Rodriguez, Forestal de Trillium Ltda. Operation Manager:

[41] The harvest volumes were 560,000 m^3/yr while the industrial production levels were estimated at 660,000 m^3 (Forestal Trillium Ltda., 1996). Volume levels were significantly lowered after recommendation by Dr. Jerry Franklin joining the Trillium team in 1996 as the second land Steward for the Río Cóndor forest project. Annual harvest levels went from 560,000 m^3 to approximately 200,000 m^3 of which the spared forests became his recommended buffer zones and reserves of approximately 25% of the property or 65,000ha.

> For Harald, his concern was about the projections, how we were projecting the growth of the forest. If you have 100,000 ha to cut, and you are planning to make the cycle of 100 years, you just cut 1,000 ha/yr and I think that can be true if the forest doesn't grow anything or if [you do not attain] any kind of response by the [forest] management, but you are adding growth because you are managing [the forest], your growth rate is higher, so, the amount of hectares, we can talk about it a lot you know but, the truth is if you are saying that if you have 100,000 ha and you will cut in everything in 100 yrs you can cut 1,000 so you are not adding the growth of the forest into the equation--this was the main problem with Harald. *Gabriel Rodriguez, Forestal de Trillium Ltda. Operation Manager, Punta Arenas, January 22, 2004.*

Rodriquez clarifies Trillium's perspective on their estimated volume levels being high, but realistic since management of the forest would improve growth rates and cultivate higher yields than what Schmidt calculated. Interestingly though, Dr. Jerry Franklin, Second Land Steward and Forest Ecologist, University of Washington, also thought the proposed cut levels were too high:

> I think the proposed harvest levels were probably high, in retrospect, I didn't think so particularly at the time. But you know, after I spent more time in the forest and after I looked at some of the initial figures, I looked at the level of harvest, no I think it would have been high. But, by the time the project had gone through the second EIS and actually got implemented, I thought the level of harvesting being talked about was easily sustained, it had been immensely downsized in terms of harvesting by the time you got to 1998/99. *Dr. Jerry Franklin, Forest Ecologist and Professor, University of Washington, US and Second Land Steward July 19, 2004.*

According to Franklin, the initial harvest levels of 560,000 m^3 were probably high but the reduced level of approximately 200,000 m^3 was easily sustained ecologically. His perspective inadvertently supports the concerns by others that initial harvest levels were not sustainable, which reinforces the criticism of the ecological sustainability of the project. However, it also supports the possibility of having a sustainable forest project on the Río Cóndor property if projected harvest levels are set to levels that are more ecologically appropriate. In addition, Franklin raises concern about not just the harvest levels, but also the harvesting method:

> My own view was that you could probably have a very viable sustainable forest operation with probably 25% of the property and it would be managed by--what I was pushing at that point was effectively "group selection" rather than "shelterwood." Chilean forest service required an even-aged system, they required a shelterwood and it was not appropriate, from an ecological point of view, it is not appropriate to impose that on that native forest, which is an even-aged system.

The shelterwood method, discussed earlier in Chapter 4, is not appropriate, ecologically, in Franklin's eyes because his 'even-aged' system better mimics the natural dynamics of the forest. Even-aged management

involves group selection harvesting which attempts to replicate the natural disturbance patterns such as windthrow in the lenga forests[42].

The doubt or mistrust of the actual intentions of Trillium is evident within the forest industry as well. Mauricio Rosenfeld, Forestry Consultant/Professor at University of Magallanes, Punta Arenas, February 19, 2004, questioned what was going to happen while the forests redeveloped: "Okay, they [the trees] need 80 or 90 more years to be interesting [economically valued] again, so we were going to have very strong growth and then a bust followed by three generations waiting for the forests to return." However, concern by industry did not focus specifically on actual intentions and instead turned to the threat Trillium potentially posed for local forestry companies in Chile. Local companies saw Trillium as raising the social and environmental standards of how forestry operations would be conducted in Chile:

> I know that some of the companies down there did not like Trillium because they felt like they were raising the bar that there was going to be, that Trillium was going to go down there and perform at a much higher degree of social and environmental responsibility that they would be forced to do the same. So I know there was some of those forestry companies that [have] been operating down there, you get down to southern Chile like you are pretty much a law unto yourself. The state forestry agency doesn't have the ability to police that, doesn't have nearly the resources to review what is happening down there. So I think that there is a fear that Trillium would make it lot harder for everybody by doing a better job saying if they could do it why can't you do it. *Rand Jack, First Land Steward of Río Cóndor Project, Bellingham, WA, US, July 7, 2004.*

In terms of perspectives of local people in Porvenir, skepticism is also evident in the words of Teodoro Valdebenito Riquelme, Community leader in Porvenir, March 3, 2004, who was dubious about the project from the very start: "From the beginning this project left me with a lot of doubts because it was just too, too good. It was like if you say, 'you don't have a dime to your name' and then you win, I don't know, the prize, that big one that they have in the U.S. for hundreds of millions of dollars, something like that for an inhabitant of Tierra del Fuego. It was just too good to be true." Riquelme's skepticism was not because of the high amounts of capital at risk or the possibility of 'flipping the land' as a means for a return on investment, it was because the project appeared too good to be true. As a result, "[When] they circulated a petition in support of the project, I never signed [it] because even though they came here with lists and stuff, I said no, I am not going to sign, I'm going to watch calmly and when they are [actually] here then I am going to say yes, that's good." Unfortunately, his instinct to distrust the company from North America proved correct:

> I argued that this was a business made of paper. The first sign that they gave was that here in Porvenir a 12 meter deep port was going to be built, then I, who has been the

[42] See Appendix IV, "Shelterwood Harvesting" for more information by Dr. J. Franklin on this issue. Also, see Rebertus (1993) and Rebertus et al. (1997) for the information on natural disturbance patterns of Nothafagus forest dynamics in Tierra del Fuego.

> [community] leader fighting for 4 years, that is, suggesting to the authorities that they build a port in Porvenir, so then I liked that, I liked that idea. But that was the first thing they changed here, they said the project [of the port] was 12 meters deep, then later they said no, were are only going to build a 5 meter deep port –[that] is when I said, this project is going to sink, this project isn't worth anything. *Teodoro Valdebenito Riquelme, Community leader in Porvenir, March 3, 2004.*

Eventually, the proposed port and mill for Tierra del Fuego faded away, along with the hopes and trust of many community members. Another event, which drew attention for Riquelme, was the high turn-over of Trillium executives in the region. The concern in this case was with the fact that any agreements or arrangements made with the previous Trillium employee would likely be lost as relations and trust would have to be redeveloped with each new person who arrived.

However, skepticism or doubt about the Río Cóndor Project was apparently not initially the common response in Porvenir:

> In the beginning, I was really hopeful, just like all the leaders and the governor of the time, who was Ms. Sylvia [Vera], because really and truly the project they were bringing in was marvellous. They were going to build a lot of neighbourhoods, they were going to build more schools, an 'ad hoc' hospital to service what was coming, the port, which has always been denied to us in Punta Arenas. Actually, barges, drying sheds here in the plain, in other words, there was going to be a lot of work for people, in addition to what they were bringing in from the outside. *Marta Soto Andrade, Community Leader in Porvenir, Porvenir, Tierra del Fuego, March 3, 2004.*

The project offered much needed socioeconomic development for Porvenir, which Andrade claims received wide support throughout the town. Riquelme of course is one community leader who was in opposition from the start, but many of the people in Porvenir did support the initial proposal. In addition, Andrade discusses the environmental aspects of the project:

> Well, it was a very good thing, it was promised that the logging would be moderate, they were going to bring in plants, that is, they brought everything, the environmental impact study was done, and all the conditions were there so that it wouldn't get turned around into something bad. Because of [all that] all of us got our hopes up because our community was going to be raised up. *Marta Soto Andrade, Community Leader in Porvenir, Porvenir, Tierra del Fuego, March 3, 2004.*

Andrade links the importance of having environmental measures addressed coupled with the industrial objectives to ensure the project was successful and their hopes fulfilled. However, her feelings changed after activities that did occur did not measure up to the initial proposals made by Trillium, and eventually, amounted to nothing happening at all:

> [But] then we saw that things were done halfway, that it wasn't what had been proposed, then something else didn't get included either, other projects weren't going to be

> implemented. In fact, it was a wave of proposals that came crashing down, and we started seeing that it wasn't like it had been promised. And when the moment came, a lot of things became clear and it all went backwards, until finally, in the end, nothing happened at all, because when it was analyzed better -- that was [the moment] a tough battle started, wasn't it? Full of controversies and things like that. Yes, the truth is that we pulled back when we saw that what had been promised was not what was going to happen, we chose not to support [the project] any further and there it stayed. *Marta Soto Andrade, Community Leader in Porvenir, Porvenir, Tierra del Fuego, March 3, 2004.*

Again, the perception of Andrade reveals the issue of doubt, or disappointment in this case, in that the promises initially made by Trillium did not come to fruition. The doubt and distrust in both Andrade's and Riquelme's perspectives reminds us that even though the project was revolutionary, involved large capital investment, included prominent foresters from Chile and North America and underwent a voluntary EIA, the source of distrust and doubt came down to Trillium not keeping their word and fulfilling a promise.

Internationalizing the Campaign

In addition to the inclusion of international environmental organizations whose resources and political influence extend beyond the Republic of Chile, a number of important events took place that internationalized this dispute and moved it beyond the political spaces of the Chilean state. For Adriana Hoffman, National Coordinator of Defensores del Bosques Chileno, a key activity was the publication of the book, "La Tragedia del Bosque Chileno/The Tragedy of the Chilean Forests" in 1998 (Defensores del Bosques Chileno, 1998), which brought the work of leading forestry experts from Chile, North America and Europe together into a coffee table-sized book complete with dramatic photos of devastation caused by forestry-related activities throughout Chile:

> This was a sort of consolidation of the campaign. We had the incredible luck to have the financial resources to print the book and give the book to main actors. We wanted to [have] strong academics from all the universities, very important thinkers and writers from here and US and in Germany - nobody here in Chile wanted to support it. This was a very political moment. This was a very important moment (the launching of book) with the Trillium issue, the Boise Cascade[43] issue, the forest issue was candid so this was a very important moment. I had the feeling that from this time on, the Trillium project began to fade away because it was sort of a stroke in the face of the companies that were extracting and damaging and not leaving, for us Chileans, the forests. They were taking the trees and taking the money and they were taking everything out, you know? It was

[43] Boise Cascade Corporation of Boise, Idaho, USA, was given approval by CONAMA in 1999 to begin a $160 million project that included building a port in Puerto Montt and plant to process harvested native forests into oriented-strand-board (OSB), a plywood made from gluing wood chips and predominantly used in the home building industry. In February of 2001, Boise Cascade announced the project was cancelled and claimed the reason was because the government was not clear on environmental requirements as opposed to the environmental groups' campaign, which included litigation and raising public awareness to thwart the project. The company claimed the environmental movement played a secondary role to this decision and placed the blame on government regulations. In addition, they claimed a depressed market in oriented-strand-board at the time contributed to the economic viability of this project.

very strange. *Adriana Hoffman, National Coordinator of Defensores del Bosques Chileno, Santiago, Oct 6, 2003.*

While the release of "Tragedia del Bosque Chileno" proved an effective initiative employed by the environmental movement, a market campaign was launched in 1998 to target consumer markets in the North, thereby broadening its reach beyond the institutions of the Chilean state, whose responsibility and jurisdiction it is to administer natural resource use and environmental policy-making for Chileans:

> The market campaign lasted two years (1998 and 1999), and it was, I would say, a media campaign. It was not a campaign aimed to stop the departure of a ship loaded with wood from Chile, because Trillium was not taking any wood out of the country. I think the [market] campaign gave us the strength (momentum) we needed for Trillium to take us seriously. We started our analysis by acknowledging that there was a global market in the making...and if Trillium wanted to stay in Tierra del Fuego, they had to behave in a way that guaranteed the sustainability of the project, and because from our perspective, the project had no guarantee of being sustainable we were going to denounce Trillium in order to promote a boycott. *Maria Luisa Robleto, Forest Campaign Director, Greenpeace South Pacific, Santiago, November 3, 2003.*

For Robleto, the market campaign proved an effective means in which to convince Trillium that they were a powerful actor to be taken seriously, "up until the launching of the market's campaign, Trillium always thought we were not going to exert too much pressure" *Maria Luisa Robleto, Forest Campaign Director, Greenpeace South Pacific, Santiago, November 3, 2003.* Interestingly, as David Syre and Steve Brinn drew upon the connection between the global forest market changing and emerging new global markets for finished lumber or furniture in distant regions such as China while designing the Río Cóndor Project, the environmental movement also turned to the global market as an effective initiative to denounce the project. Consequently, Robleto goes on to explain whether the market campaign was effective against Trillium: "Now, was it an effective campaign to scare Trillium? Yes, it was. And I think that was politically correct as well, because we had no support at all, from no one. Not only did the Chilean government not hear us, but [it] also favored its relation with Trillium. Therefore, one of the ways we had to be heard was positioning ourselves very strongly in the media" *Maria Luisa Robleto, Forest Campaign Director, Greenpeace South Pacific, Santiago, November 3, 2003.* However, unlike many other market strategies commonly employed in North American-based forestry campaigns where the timing of the campaign often occurs after harvesting began, the campaign against Trillium proved more difficult for environmentalists in convincing people because harvesting never officially started:

> Now, what I regret about the market's campaign is the fact that it was not understood very well, because at the time we launched it, Trillium had not started to cut the forest. Therefore, we appeared threatening a company that had not cut a single tree, and on top of that, in a region like Magallanes where the government was telling everybody that what we were doing was specially wrong [harmful] for the population, because we were

> blocking investment and employment generation. *Maria Luisa Robleto, Forest Campaign Director, Greenpeace South Pacific, Santiago, November 3, 2003.*

Speaking of North American campaigns, US ENGO American Lands Alliance was solicited by Chilean environmental groups to assist in halting the Río Cóndor Project by raising awareness and sharing resources and expertise in initiatives such as the market campaign. According to Pat Rasmussen, Forest-Americas Coordinator, American Lands Alliance, Washington State, US:

> Defensores del Bosque Chileno approached us for assistance. We became their partners, applying pressure here in the US, and especially in Bellingham, WA. I created a Trillium Watch group in Bellingham made up of people who did not like Trillium and who wanted Tierra del Fuego protected. We brought Chileans and Argentineans up to Bellingham to do protests, press events, educational events, concerts, etc. to raise awareness among locals of what Trillium was trying to do in Tierra del Fuego. *Pat Rasmussen, Forest-Americas Coordinator, American Lands Alliance, email correspondence on June 9, 2004 from Washington State, US.*

However, it was at the People's Summit in 1998 when the coalition, or Forest-Americas Network, between American Lands Alliance and Chilean environmental groups was created: "The Forest-Americas Network was created in Santiago in April 1998 at the Summit of the Americas [at the People's Summit which ran concurrently to the Summit of the Americas] to provide a way for forest defence organizations in North, Central and South America to work together to stop free trade in forests and the movement of transnational timber corporations" *Pat Rasmussen, Forest-Americas Coordinator, American Lands Alliance, email correspondence on June 9, 2004 from Washington State, US.*

For Rasmussen, she felt obliged to get involved not just to preserve forest ecosystems beyond the US, but because American Lands Alliance felt responsible since Trillium is an American corporation:

> US timber corporations were moving to Chile and threatening their forests. Since we were Americans, we saw it as our responsibility to stop those US corporations from forest destruction in Chile. I was hired to be the North American node in the Forest-Americas network, working with my Chilean counterpart in Defensores del Bosque Chileno, Patricia Vera, to develop the network and establish joint campaigns. *Pat Rasmussen, Forest-Americas Coordinator, American Lands Alliance, email correspondence on June 9, 2004 from Washington State, US.*

A key strategy Rasmussen contributed to in Chile was providing images of Trillium's forestry practices commonly found in their home State of Washington:

> Just prior to leaving for the Summit, I flew over Trillium's clearcuts near Bellingharn, WA and photographed them. I had been watching Trillium's bid to log Tierra del Fuego and because I live in Washington State, I knew what they were doing on their own lands. I stood up in the summit meetings, showed the photos, and said, "This is the real Trillium. While they are down here telling you that they are the most environmentally sensitive

> timber company, at home they are clearcutting their lands, violating laws and the wishes of their neighbors. *Pat Rasmussen, Forest-Americas Coordinator 1998-2004, American Lands Alliance, e-mail correspondence June 9, 2004.*

Rasmussen's contribution of the images of Trillium's clearcutting practices in Washington State, US, at the Forest Summit in Chile proved to be a powerful initiative in fostering distrust and skepticism among the various actors in the forest dispute. Images of clearcut forests illustrate obliterated landscapes that were once dynamic forest ecosystems that can take thousands of years to develop are sure to invoke strong emotional and moral values of people. Interestingly, as discussed later in this chapter, the allegation that clearcutting was going to be the logging method employed in the Río Cóndor Project proved incorrect. Clearcutting has been a legal and commonly practiced logging method in the Pacific Northwest whereas it is illegal and was never proposed in the Río Cóndor Project. However, we will not know what the Río Cóndor Project would have actually looked like on the ground since it was never officially launched.

In addition to providing visual examples of Trillium's forestry practices in Washington State, US, Rasmussen employed initiatives in her home state. Initiatives included "protests, letter writing campaigns, e-mail actions, press articles and direct action at Trillium headquarters in Bellingham. [She also] arranged for Chileans and Argentineans to come to Bellingham to speak out against the Trillium project. [She also] visited Trillium headquarters to ask David Syhre [sic] to leave Tierra del Fuego. She spoke at conferences to tell people what Trillium was trying to do and enlist their support" *Pat Rasmussen, Forest-Americas Coordinator 1998-2004, American Lands Alliance, e-mail correspondence June 9, 2004.*

Lastly, she worked closely with Defensores del Bosques Chileno on the Gondwanic Forest Sanctuary Campaign, which was launched in Pucon, Chile in 1998 as an additional initiative taken by environmentalists in Chile. The Gondwanic Forest Sanctuary is a proposed intercontinental preserve for the southernmost forests of the world. Originating out of the idea of ocean sanctuaries for whales (interview with Adriana Hoffman, Director, Defensores del Bosques Chileno, Santiago, October 6, 2003), the Gondwanic forest sanctuary seeks to protect the forests that were once connected as Gondwanaland before plate tectonic activity (approximately 130-190 million years ago) caused the regions of southern Chile, New Zealand, Tasmania and mainland Australia to separate. The philosophy is based on conservation and draws on the international agreement, 1961 Antarctica Treaty, which preserves the Antarctica environment by ensuring international peace and cooperation. An initiative to achieve this goal was organized by Rasmussen as the "Adopt a Tree Campaign" to raise money to purchase land for Gondwana Forest

Sanctuary. The property of the Río Cóndor forest project is located within the proposed Gondwana Forest Sanctuary[44].

Another important environmental member from the US involved in the Río Cóndor forest dispute was Rick Klein, who played an important role when he "finagled Goldman Sachs into the picture" (*Rick Klein, Executive Director of Ancient Forest International, California, US, interviewed in Pucon, December 22, 2003*) with the eventual acquisition of the Trillium property by Goldman Sachs. This was a strategy of securing a purchaser for Trillium's note[45] in Chile (i.e., the Río Cóndor Project land/assets) if or when Trillium was to go bankrupt. In addition, Klein not only brought Robert Mann, CODEFF and the Alliance to the table for an attempted resolution (discussed below in "Internal Differences"), he also worked on getting media mogul, Ted Turner, to purchase Trillium's assets in Chile. However, after September 11, 2001, Ted Turner withdrew interest from any foreign investment. Klein eventually organized another opportunity through various means which eventually resulted in Hank Paulson (CEO) of Goldman Sachs purchasing the note, which was up for auction in the US after Trillium's investors, Capital Consultants, went bankrupt.

The international coalition launched the Río Cóndor campaign and the environmental movement in general, into a cross-cultural and longitudinal political force from the South to the North. Greenpeace and the market campaign internationalized the strategy together with Pat Rasmussen and the American Lands Alliance, US[46] and Rick Klein of Ancient Forests International. The coalition proved to be an extremely important and valuable unification of people with like-minded objectives of protecting the diminishing forest biomes on the planet. "Well I think that we need each other in my opinion and the collaboration among groups North and South, South and South, North-North or whatever is very important now in the context of globalization. We have to act globally to or globalize. It's crucial, crucial as [long] as you respect, both sides respect their local context and local interests" (*Hernán Verscheure, Forest Program Coordinator, CODEFF, Santiago, October 20, 2003*). The context of globalization and the need to link local actions to the global level is very important according to Verscheure and Malú Sierra, National Coordinator of Defensores del Bosques Chileno: "It is very important, that kind of globalization, if they are globalizing the economy, we too, we globalize our thinking, our philosophy. There are people everywhere who want to defend the forests of Tierra del Fuego because they understand that they are very rare, yes, friends [that] we can't even understand very well [because of language differences]" (*Malú Sierra, National Coordinator, Defensores del Bosques Chileno, October 3, 2003*). Whereas corporations, government agencies and supranational organizations like the International Monetary Fund (IMF) and World Bank or trade liberalization strategies such as Free Trade Agreements and trade judiciary boards such as the World Trade Organization (WTO)

---

[44] For more information, see website: <http://www.gondwana.org/> and <http://www.nativeforest.org/campaigns/gondwana/>. Retrieved September 22, 2004.

[45] See Appendix I for more details and timeline of Goldman Sachs's acquisition of the Río Cóndor land and assets from Trillium.

[46] Additional US ENGOs included Forest Ethics, National Resources Defense Council and Rainforest Action Network.

globalize the economy, both Hernán Verscheure and Malú Sierra indicate how environmental strategies must also globalize.

Internal Differences

While the environmental movement in Chile was successful in its political endeavours to halt and delay the Río Cóndor Project and successfully forming an Alliance designed to maintain and embody the diversity of the environmental movement in Chile, internal differences eventually surfaced and presented significant challenges. For example, in 2000 there was a disagreement over a proposal put forward by the Nature Conservancy in hopes of developing consensus in the forest dispute. Rick Klein, Executive Director of Ancient Forests International, California, US, was responsible for bringing the Alliance and Trillium (Robert Mann, President of Bayside Ltd., in particular) to the bargaining table. However, the environmental group CODEFF, a member of the Alliance, expressed a much different perspective on the proposed consensus building tool of increasing forest preservation in return for support in the Río Cóndor Project:

> At the beginning, the land that was to be preserved was around 20,000 hectares, after having spoken with CODEFF, they suggested, I will say 'suggested', 60,000 hectares. Now what's worse, for the Alliance, the worst of all was that in their [CODEFF] publications and declarations, they talked about everything that was going to happen with the areas that were going to be conserved, but in the end, they had the grammatical phrase 'and the rest can be submitted to a management which is environmentally sustainable' and the "rest" was practically the entire rest of the forest because out of those 60,000 ha, only 20,000 were of commercial value, that was the big conflict. So, in conclusion, CODEFF left for awhile and they left the alliance. But, we told Nature Conservancy that we would not accept this, which meant backing up the logging system. *Nicolo Gligo, Director of Alliance for the Forest of Chile, Santiago, November 19, 2003.*

Gligo explains how the Alliance disagreed with the CODEFF perspective over how much land was actually going to be protected if the Alliance agreed to the proposed 60,000 hectares. The issue pertained to the fact that of the 60,000 hectares, only 20,000 hectares were of commercial value, which suggests that the remaining 40,000 hectares were non-commercial timber or non-forested landscapes. CODEFF's position, explained by Hernán Verscheure, Forest Program Coordinator, CODEFF, Santiago, October 20, 2003, was that after an appropriate amount of native forest is protected, the remaining forests could be available for sustainable management, as long as the forests keep their attributes and functions. In other words, CODEFF's position on forestry and what was acceptable in the Tierra del Fuego can be situated somewhere in the middle between ecocentric and technocentric environmentalism, wherein they supported the Río Cóndor forest project in the Tierra del Fuego as long as ecological sustainability was ensured. This differed from the Alliance's more ecocentric perspective, which did not believe the management plan of Trillium was ecologically sustainable and outright rejected the project.

Equally interesting in the environmental movement and the Río Cóndor Project is the necessity for and success in fostering an international coalition to stop the project. Internationalizing environmental campaigns has proved a very effective strategy in the North (e.g., Clayoquot Sound and Great Bear Rainforest campaigns) where some of those same environmental groups from the North have now more recently been building collaborative relations with their neighbours of the South:

> Yes it was good. It was very, very good. Imagine that those organizations and their [headquarter] offices not only offered money so that we could work here in Chile, but they also gave us technical assistance and they supported us in all our meetings, at which the representatives from the environmental movement sat down with the business owners for the first time and we made them see what they were doing. Yes, that is, everything was accomplished because of the help of the organizations. If we had not had that international connection, we would not have been able to do it alone. *Maria Luisa Robleto, Forest Campaign Director, Greenpeace South Pacific, Santiago, November 3, 2003.*

The ENGOs in the North provided much needed funding and technical support, which proved invaluable in achieving their goals in Chile. Funding of course is a challenge for nearly all ENGOs, be it North or South, and can seriously restrict their options in how they strategize campaigns. In addition to funding and technical know-how, the coalition maintained momentum in the movement, which is essential in order to survive the discordant process of achieving sustainability:

> It maintained the momentum if there was [any] falling asleep or [if organizations wound up] engaged in other areas and forgetting this issue, we were getting phone calls and visitors saying hey, what is going on. Hey guys, (he claps his hands) wake up! And also, because the project effected not only the Chilean Patagonia, but also, there is Argentinean Patagonia--it provided opportunity for [ex]changing experience information from both sides of the mountain, so it created the opportunity for an international perspective on the future management of native forests in Patagonia. *Bernardo Reyes, Director of Ecological Economics Program, IEP, Santiago, October 10, 2003.*

From the Northern perspective of Pat Rasmussen's, Forest-Americas Coordinator, American Lands Alliance, e-mail correspondence, WA, June 9, 2004, the coalition proved cooperative and effective:

> We were a team across thousands of miles, great friends. We worked together on a joint North American campaign through conference calls and e-mail. The North American coalition was Greenpeace, Rainforest Action Network, Native Forest Network, International Forum on Globalization, Pacific Environment, [and] Ancient Forest International. We worked cooperatively with the Chilenos and Argentineans (on the Argentinean side of Tierra del Fuego). We used e-mail, conference calls, the Forest-Americas list-serve, websites, meetings, conferences and actions like protests to advance the campaign.

Rasmussen goes on to explain that since the corporations in Chile are primarily US-based, Chileans cannot stop them on their own and need US ENGOs to assist in halting forestry-related projects. "The international

community must fight timber corporations in Chile. It is primarily our US corporations that go there and attempt to cause the destruction. The Chileans cannot stop them alone. They need for us to apply pressure here in the US to stop the projects" *Pat Rasmussen, Forest-Americas Coordinator 1998-2004, American Lands Alliance, e-mail correspondence, June 9, 2004.* However, as Hernán Verscheure explains, while it is very important to build collaborative relationships between North and South environmental organizations, there are cross-cultural power dynamics that must be addressed to strengthen relations:

> But also, we have to pay attention to who defines the agenda and this is one thing that has to be taken into account very clearly. Often, the relations between Southern and Northern NGOs, what happens, are that the Northern NGOs will set up the agenda without having the intention. So, here in the South, we just follow the agenda that has already been set up officially or unofficially and this is one thing that we have to [address]. I am not saying that this always happens; I am saying that this is a kind of general view based on my experience. I have been working in the environmental area for almost 20 years, so I can tell this kind of tendency. But like I said at the beginning, it [the coalition] is very necessary, it is the only way to achieve our goals. *Hernán Verscheure, Forest Program Coordinator, CODEFF, Santiago, October 20, 2003.*

Beyond agenda setting, another issue I discovered within the international coalition was that there were various ideas "imported" from the North into Chile. The first are the ideas of primary and secondary forests common in North American forestry language, where the former refers to undisturbed tracts or forests without human intervention and the latter means forests that have been subject to human intervention such as forest management practices. "One of the issues that came out –and I already told you, these concepts of 'primary forest' and 'secondary forest'. This is an obtrusive approach that came from Western US and British Columbia and [imported] into here (Chile) and there were some [environmentalists] that came to talk with people here in the debate with the officials from the company that we had to keep the primary forests. This concept is quite attractive you know, but on the other hand, in our opinion, it doesn't apply much to our forests" *Hernán Verscheure, Forest Program Coordinator, CODEFF, Santiago, October 20, 2003.*

Primary or secondary forest categorization is appropriate for the Pacific North-western context because clearcutting is a common method of harvesting timber. A primary forest[47] is a forest, regardless of its age, that has never been subject to logging and has developed following natural disturbances (e.g., landslides or forest fires) and under natural processes. A secondary forest is a forest that is managed by humans following intervention where regeneration occurs either naturally or artificially such as tree-planting techniques. The definition is linked directly with human intervention since forest disturbance can also occur under natural means such as forest fire or landslides; a new forest that develops under natural disturbances

[47] Definitions of Primary and Secondary forests used here are taken from the Convention on Biological Diversity website: http://www.biodiv.org/programmes/areas/forest/definitions.asp. Retrieved August 28, 2005.

is a primary forest. For Verscheure, this relatively simple means of categorizing forests is appropriate for the Pacific Northwest, but it does not apply to the lenga forest context in Tierra del Fuego. Human interventions causing forest disturbance patterns in lenga forest of Tierra del Fuego have predominately consisted of selective, small patch/gap harvesting as opposed to clearcutting. This does not mean clearcutting methods were not employed on Tierra del Fuego in the past, but that categorizing these forests as primary or secondary is inappropriate due to different forms of disturbance patterns, as well as the high regeneration rates within cleared patches. In addition, the lenga forests have been subject to disturbances by non-native beaver populations (i.e., damming and flooding forests) and native guanaco (i.e., grazing on lenga seedlings). Therefore, categorizing these forests in terms of having an extreme human-caused disturbance such as clearcutting followed by management strategies is different than the smaller scale and sporadic disturbance patterns found in the lenga. The term favoured by Verscheure, and the authors of Neira et al. (2002), found that 'frontier'[48] forests better applied to the lenga and Chilean forest context overall, particularly when translating classifications between Spanish and English.

Another concept that was discussed earlier and emerged as important was the idea of 'clearcutting' or tala rasa. After presenting my research objectives during the early stages of my interviewing, most people from all perspectives in Chile objected to my use of the term clear-cutting. From my initial readings of this forest dispute before arriving in Chile and my level of familiarity with the concept as a resident of British Columbia, I did not hesitate in assuming clearcutting was the logging method to be employed by Trillium. Instead, "many people asked why the project was approved when they [Trillium] were going to clearcut – this was a mistake, there would be no clearcutting" *Sylvia Hormazabal, Environmental Evaluator, CONAMA and Coordinator of CONAMA Region 12 during dispute, Santiago, November 28, 2003.* The Campaign Director for Greenpeace South Pacific also claims to take the same perspective as Hormazabal:

> What I was saying to you, what I want to make you see is that in the Trillium conflict clearcutting was not considered, because in Chile, clearcutting is prohibited when cultivating and harvesting native forest. Of course it happens and it's done illegally, but in this case, Trillium never engaged in clearcutting, nor did they propose doing it. Now what we did want was to establish the precedent of their actions in Washington State where they did practice clearcutting and they were strongly criticized by the community for this practice. Well, I believe that regarding clearcutting, we were clear, because it was a practice they carried out in Washington State and therefore it was [viewed as] a bad precedent by us, but okay, in Washington State it is legal to clear cut. *Maria Luisa Robleto, Forest Campaign Director, Greenpeace South Pacific, Santiago, November 3, 2003.*

[48] Frontier forest in Chile are defined as "mature forest or dense timberline forests, of at least 5,000 hectares, that are made up of native species, and are intact or have been slightly altered" (Neira et al., 2002, p. 9).

According to Maria Luisa Robleto, Greenpeace South Pacific did not broadcast the idea that Trillium was going to use clearcutting as the harvesting method, but instead linked the concept, which is widely practiced in Washington State, to reveal insight into the character of Trillium Corporation and how they behave in their home state. However, environmentalist Pat Rasmussen from American Lands Alliance and prominent advocate against Trillium's forestry activities in Washington State expressed that clearcutting was going to happen in Tierra del Fuego. "That's what [clearcutting] Syhre [sic] really wanted to do, would do, and did do in Bellingham" *Pat Rasmussen, Forest-Americas Coordinator 1998-2004, American Lands Alliance, e-mail correspondence June 9, 2004.* As I discussed in Chapter 1, I arrived in Chile with the understanding that Trillium was going to clearcut in Tierra del Fuego but soon discovered this was incorrect; yet, it was also inaccurately assumed to be the harvesting method by some environmentalists in North America.

The international coalition offers environmental groups in Chile and North America the opportunity to develop powerful political alliances, share resources and skills and bring together like-minded people working towards protecting the remaining forests on this planet. However, we have also discovered important insights into cross-cultural differences between North and South ENGOs, which manifested and shaped the ideas of environmentalism and initiatives employed during the Río Cóndor forest dispute. Jimmy Langman offers useful insight into the international coalition:

> There definitely was [cooperation]. For a while, Greenpeace made it a major campaign for them and other environmentalists in the US have been supportive. Pat Rasmussen has been, I think, the key person [in] building a bridge between communities especially in terms of Trillium. I think that there are a lot of problems though, I think American environmentalists, we have a different way of doing things and I think sometimes American environmentalists tried to run the show too much. I think they didn't really involve Chileans enough in the decision-making and didn't really respect the abilities of Chilean environmental groups to do the things that, which Chilean environmental groups are very good. *Jimmy Langman, Freelance Journalist, Santiago, October 10, 2003.*

Referring to himself as an environmentalist from the United States, Langman provides insight into the mentality and behaviour of US-based environmental organizations who at times controlled the decision-making and agenda setting of the coalition, and, consequently, disrespect the competency and skills of their Chilean counterparts:

> That's just my personal opinion, sometimes they think that the US thinks the whole world evolves around them[selves]. I am an American so I know, I sometimes think a lot of Americans seem to think we are the centre of the planet and believe we have special skills and knowledge that others don't and that's not always the case. I think there are some really good environmental groups here, capable of doing things without their help - what they need is money. *Jimmy Langman, Freelance Journalist, Santiago, October 10, 2003.*

The international coalition is extremely important for a number of reasons such as nurturing a global environmental movement, enabling access and exchange of resources and knowledge, and because it illuminates an example of social movements in Chile embracing as well as bypassing the state (e.g., political parties) in achieving change. Internationalizing social/political/ecological issues is not new in Chile, but the March 19, 1997 Supreme Court decision represented a key moment in expanding the political power of the environmental movement in Chile. The Río Cóndor forest dispute exemplifies the effectiveness of the environmental movement's ability to collaborate with parliamentarians and employ litigation to diversify their strategies as well as employing a market campaign and relations with Northern ENGOs. Consequently, the internationalization of the environmental movement's reach does not exactly support Oxhorn's (1995) opinion that, "for better or worse, political parties will ultimately be the decisive influence on the potential for a popular social movement to emerge, in any form" (p. 282). Instead, the Río Cóndor forest dispute reveals the environmental movement's breadth and sophistication in employing effective tactics to thwart forestry-related projects deemed "unsustainable" according to Chilean environmental groups.

Chapter 6
Conclusion and Discussion

"I told David Syre the first time I came back from seeing the property in Tierra del Fuego, I said, David, you bought a national park which has some timber." Dr. Jerry Franklin, Forest Ecologist and Professor, University of Washington and Second Land Steward, July 19, 2004.

This thesis combined the theoretical orientation of Political Ecology, environmentalism, sustainable development, and social movements with empirical research gathered during fieldwork to provide insight into what the dispute surrounding the Río Cóndor sustainable forest project reveals about the challenge of developing sustainable forestry, and which actors can develop a sustainable forestry in Chile. In particular, this thesis answered: given the history of Chile's colonial development and it's state's recent political and economic history, how did key social actors in the domestic and international spheres contribute to halting the sustainable development strategy of the Trillium Corporation in Tierra del Fuego? In response, this thesis argued that key social actors in the Chilean domestic sphere and international sphere adapted and resisted socially constructed ideas of sustainable development and environmentalism, which led to the cessation of the project.

In arguing this position, I explored what the process of contending ideas of environmentalism and sustainable development reveals about the different approaches to developing sustainable forestry. In addition, we saw how different ideas of sustainable development and environmentalism led key actors, Trillium and the environmental movement, to take different initiatives to bring about, or resist, the implementation of the Río Cóndor Project. As such, despite the apparent outcome of an aborted attempt at sustainable forestry, this is not about another failure to achieve the elusive goal of sustainable development, but instead offers valuable lessons in the process of developing sustainability. This chapter concludes this thesis along with discussing my thoughts about the forest dispute and lessons inferred from interviews or indicated as my opinion, which I base on secondary data or participant observations for the Chilean state and from Trillium and the environmental movement. In addition, I discuss ideas or issues that emerged out of interviews not explored in the forest dispute as suggestions for future research and ideas to consider as Chile advances towards developing sustainable forestry.

Discussion on the Río Cóndor Forest Dispute

Based on my impressions and interactions during fieldwork in Chile from Sept 2003 – March 2004, the Chileans whom I interacted with are passionate, warm-hearted, sophisticated, articulate and committed people in achieving the values they subscribe to as a society. The range of perspectives I uncovered all demonstrated a passion for contributing to meaningful change. In particular, sustainable development is an extremely important concept guiding the Chilean government's, business' and social movements' ideas and behaviour. In addition, I often heard in interviews that what is important to Chileans is to have a good 'face' in the world -- i.e., organizing society and achieving their goals to gain approval by other countries. This idea arose within the context of conducting business in Chile and in particular, conducting business in an environmentally friendly manner to be able to sell their products on the global market.

I am sharing this brief insight into my experience in Chilean culture because while I encountered so many articulate and thoughtful people with respect to ecological and social concerns in Chile, I also realised that Chile's place in the global economy significantly influences their options and behaviour in relation to employing initiatives for sustainable development. In Chapter 3, we learned how Chile is entrenched within a global economy, which dates back to the arrival of the conquistadores. While centuries have passed since first contact by the Spaniards, Chile's economic model continues to remain narrowly focused on exporting low-valued primary products for markets predominantly in the North. This strategy has proved extremely successful economically for Chile and pushed it ahead of many other Latin American countries in terms of economic growth. However, this form of development has also revealed serious ecological and social consequences, which of course are not exclusive to Chile, and which have resulted in framing this discord in terms of a dichotomy of economy growth versus environmental protection commonly heard throughout the world. In response to this polarized perception of pathways to development, the notion of applying 'limits' to economic growth emerged to alleviate escalating problems such as environmental degradation and poverty; all the while maintaining the perpetual drive for the accumulation of capital and economic growth. In the case of the Río Cóndor Project, achieving a middle ground between economic growth and environmental protection was going to be accomplished through exploiting the temperate/boreal forests of Tierra del Fuego.

Temperate/boreal forests provide societies with a range of ecological, social and economic benefits. They are also an important life-support mechanism for the planet. They provide habitats, contain biodiversity of many species, and contribute to regulating the planet's climate system. Forests also provide a range of uses for human needs in the form of fibre-based and non-fibre-based natural resources. Fibre-based products include lumber or paper and non-fibre based products include medicinal plants, food or the forest itself is exploited for education and recreational activities such as eco-tourism.

As discussed in Chapter 2, the global forest economy experienced a major restructuring in the 1980s; fibre sources have geographically relocated from the originally dominant Northern sources to those of the South. Changes in the industry itself saw an increased demand in pulp for paper production, with Japan leading production and distribution. Hence, a secure supply of softwood was required to feed the evolving global forest industry. Chile has played a significant role in solving the demand for softwood and at the same time was positioning itself as a reliable source of fibre for the global market. Softwood fibre is now produced in fast-growing plantations of non-native species, namely radiata pine and eucalyptus, and has quickly become a tremendous source of revenue for the Chilean government. A consequence of this type of exposure and awareness of forest issues in Chile helped to set the stage for the Río Cóndor Project in Tierra del Fuego, Chile, a location which few people, even those engaged in the forest dispute, have had the opportunity of seeing first hand.

Meanwhile, the emergence and rediscovery of a popular 'voice' in Chilean society helped nurture a relatively inexperienced environmental movement. Ecological groups or other political organizations were not permitted to gather or discuss ideas critical of the oppressive ideology of the military regime. Nonetheless, social movements responded as powerful counter-hegemonic forces, which collectively rallied against the oppressive regime of the state and included environmental issues in the broad-based and pluralistic movement. Consequently, due to mounting pressure within Chilean domestic and international spheres, the military regime was replaced with the reinstatement of an elected 'democracy' or a more pluralist society fostering values of egalitarianism. However, the transition to democracy nurtured since 1990 is associated more with a marketized democracy where economic forces play a significant role in shaping the process of democracy. In addition, democracy is increasingly experienced in terms of a link between an individual's freedoms, choices and opportunities, and their ability to accumulate wealth within a capitalist society. The neo-liberal economic legacy of the military regime, which fostered this type of political and economic organization of society, has become synonymous in Chile with impressive economic growth, but at the expense of social equality and environmental degradation. It does not take much imagination to understand the reality of the military government's dark cloud and how it permeated throughout many channels of people's everyday experiences and government institutions.

The transformation from authoritarianism to civilian government gained momentum during the March 11, 1990 election, which saw President Aylwin become the first elected president in Chile since 1970. Although threats from General Pinochet of organizing another coup d'état loomed in the minds of the Concertación psyche, "la alegria ya viene" ("happy times are coming") appears to remain the dominant spirit. While the political and judicial bodies were rediscovering their legitimacy and power, members of civil society, such as environmental groups, began to organize and re-discover their voice within the public

sphere. This is significant for the Río Cóndor Project, since the emergence of this project not only marked the beginning of a national environmental law (Law 19,300), but that it also tested civil society's ability to mobilize, organize, protest and challenge the government's decisions and policies over natural resource use. The environmental movement recognized these media of communication as an effective means for building the movement, which as we learned in Chapter 5, the environmental movement specifically gained political proficiency in Chile through an effective litigious strategy coupled with internationalizing their reach through coalition building with ENGOs beyond the sovereign borders of Chile.

Native forests in Chile became a familiar public concept. Institutionally, the government perceives native forests in a pragmatic, use-oriented perspective as a source of revenue. However, in order to "sell" their product on the global market they had to address and employ initiatives to ensure the protection of the environment, or referred to more specifically as natural resources. Initiatives have included committing to sustainable development with forests in accordance to *Agenda 21* from the 1992 Earth Summit and later in the 1994 Montreal Protocol conference. Additional institutional structures influencing Chile's use of natural resources have been fostered in international trade agreements such as the Canada-Chile agreement, as explained by Fernando Dougnac in Chapter 5. The challenge for the Chilean state is to move from the conceptual ideas of sustainable development and translate them into practical and effective initiatives for environmental protection such as regulations and legislation. However, as revealed in the Río Cóndor Project, the state is limited in financial resources to gather the necessary ecological data, which is an essential factor in achieving ecological sustainability. Consequently, the government has taken measures to re-direct ecological data accumulation responsibilities to those of forest project proprietors to assist in formulating valuable data needed to achieve ecological objectives (Carlos Noton, Environmental Coordinator 1994-98, CONAF, Santiago, November 26, 2003).

Different people, and/or social actors, have different perspectives around forest use and what is appropriate intervention. These perspectives are also changing throughout time as society's needs change and knowledge about forest ecology and/or its degradation improves. This is particularly the case, as we saw in Chapter 4, where environmental pressures in the tropical forest regions coupled with diminishing stocks of hardwood timber helped to shape the rationale behind the Río Cóndor Project. Consequently, we are reminded that initiatives employed to satisfy societal needs and wants in surrounding ecosystems, such as forest exploitation, transform the physical world, which in turn has a direct or indirect influence on human societies and our behaviour. As such, in my view, one thing continues to remain the same over time as far as our relationship with the physical world is concerned: our ongoing disrespect for the constraints of ecosystems, which I think is the crux of this forest dispute. Consequently, and regardless of one's take on environmentalism, the goal of achieving sustainable development is better understood in terms of being a

process of developing sustainability. In addition, for this forest dispute and most forest-related activities on the planet, it is not just about conserving the forests, it is about people's material realities -- employment and community development in regions desperate for a brighter future. Therefore, this forest dispute puts into question not only the need for development in Tierra del Fuego, but it draws out the critical debate around what kind of development is being proposed and what is being sustained in the process.

In my opinion, the crux of the Río Cóndor forest dispute rests on the idea of 'limits' in terms of the form and rate of forest exploitation for socio-economic development. As explained in Chapter 4, Trillium arrived with the confidence that through a technocentric perspective they could improve the forest's productivity and increase biodiversity while fostering sustainable development. Limits became an extremely important concept in opposition arguments claiming that the project was not ecologically sustainable. Many environmental groups and some members of state institutions argued that there was insufficient or inadequate data to ensure ecological protection. In other words, opposition groups were not convinced the company was appropriately respecting the limits or ecological constraints of the forestlands. Trillium was confident that with their North American perspective and scientific expertise in forest management they would be able to adapt and overcome any problems (or realization of ecological limits) while they intervened in this relatively ecologically unknown landscape. "There was a lot of talk in Trillium about things like technology transfer. You take some of the sophistication that had been developed in North America and transfer it, leap frog ahead in Chile, leap frog ahead with this new way of understanding." *Rand Jack, First Land Steward 1995/96, WA, July 7, 2004.*

Had the Río Cóndor Project officially started it would have revealed, over time, whether it would have been ecologically sustainable or not. Trillium's technocentric perspective of environmentalism assumed that with an adaptive management strategy employing technology and innovative scientific research they could overcome ecological problems if or when encountered. This may be true, but at what point of threshold do we stop and accept the reality that humans, while we have a capacity for intervening with the physical world, must respect and abide to ecological constraints as opposed to continuing to believe we can improve, cultivate and control them. The physical world will always adapt to our interventions, so the question remains as to whether the ecosystem we exploit will continue to sustain conditions required for human and other species' survival. I believe that exploring the social domain of ideas and processes offers insight into this much contested and often ideologically contorted reality faced by most humans on this planet.

Lessons from Trillium

Trillium arrived in Chile with an objective of developing a large-scale sustainable forestry project in Tierra del Fuego, and the inherent need to accumulate capital. They believed that securing a large supply of hardwood timber would ensure a lucrative position in the emerging global demand for value-added forest products. As we learned in Chapter 4, they were also influenced by a growing environmental conscience of the need to log in a way that reduced the destructive impacts of industrial logging and other historical societal interventions in native forestlands. In other words, they aimed at a niche market within a shifting global forest economy. The objective was to turn the conditions shaped by environmental pressures, the physical reduction in available hardwood timber and expanding consumer base in the North into a world-class sustainable forest management project by adapting intervention in the forestland in Tierra del Fuego. As such, Trillium's commitment to ecological faculties in their forest management plan was due, in part, to a genuine belief in the need to alleviate past degradation associated with industrial forestry. However, in my opinion, the economic context in which this project developed enables the ecological faculties to be incorporated and shadows the inherent social processes of, for example, accumulation of capital, maximizing profit and economic growth in relation with natural resource extraction unquestioned. Therefore, whether the Río Cóndor project exemplifies a more advanced form of 'green washing' or an instrumental strategy to ward off environmentalists' criticism can perhaps be better framed in terms of whether our current political ecological context, which organizes societies, guides natural resource use and environmental policy-making is an appropriate means in achieving social and ecological objectives. A different way to look at this is in terms of describing Trillium as 'eco-techs' employing their managerial skills to conserve a commercial asset in danger of depletion, as opposed to an ecological perspective framed in terms of an essential need to protect the biophysical world for our and all others species' survival on earth. In the end, they purchased the land at a relatively low cost in comparison to land prices in North America, received significant subsidization from the Chilean state, and consequently were left with the challenge of devising a strategy for extracting the timber of Tierra del Fuego, processing it and feeding emerging markets.

In my opinion, this project was "sustainable" because it was economically viable. This project is not likely economically feasible in North America, or elsewhere in Chile, because the cost of production, i.e., purchasing forestland is higher, and therefore reduces the viability of implementing meaningful ecological objectives into production. Incorporating ecological variables such as reducing harvest levels/intensity, creating buffer zones and certifying the timber creates additional costs and reduces the potential level of profits accrued if ecological factors were not incorporated. I believe Trillium was going to do what they proposed because the economic conditions associated with the low purchase-price of the land and access

to state subsidies afforded them room to experiment. Although, the question is not whether they were going to do what they proposed, but to what extent would their technocentric perspective direct their adaptive management strategy? At what point of intervention or threshold would mark the moment in which forest exploitation would stop to prevent ecological degradation, particularly since ecological knowledge of the forests was limited and negative impacts are not always immediately obvious?

A key cultural lesson learned, as revealed to me by Trillium representative/affiliates, was the problem with their overly-confident attitude and underestimation of the necessity for meaningful Chilean participation throughout the process. Trillium arrived in Chile with a plan to revolutionize the forest industry. They had the confidence and an agenda to create a sustainable forest project like no other project before. Armed with highly competent and passionate people from the US, they immediately began contacting environmental groups to inform them of their activities. They bragged of being open in hopes of averting conflict and mistrust. They voluntarily entered the EIA process and showed their commitment and adaptability to adversity. However, Trillium also recognized an important strategic error and how their attitudinal approach to the project likely influenced the current outcome:

> That is the strength and curse of an entrepreneurial company – you know, "I know I am right" [referring to David talking]. And he was, he was right, he understood the market. He understood the resource, he was right. But that, call it arrogance, its probably too strong a word, that sense of being right doesn't translate well into a local community --you know better than we know better [sic]. And in a hundred ways that happens. *Wayne Schwandt, Director of Latin American Operations, Trillium Corporation, Bellingham, WA, US, July 7, 2004.*

Consequently, according to Rand Jack, traditional sources of knowledge and participation were often excluded from key decision-making processes:

> I think one of the ultimate downfalls of the whole project is that it never became clear enough to Trillium that this had to be a project that was very, very heavily controlled by Chileans, that they had to play a very major role in it and we [would have] to rely heavily on their understanding, their desires and their values. And Trillium at one level I think understood that and involved that, but I don't think that Trillium was ever able to completely buy into that, and I think that they made mistakes because when it got down to some critical decisions, they turned their allegiance back to North American expertise, North American judgment, North American values. People distrusted Trillium, I mean [it was] essentially seen as a neo-colonialism kind of thing. *Rand Jack, First Land Steward, Bellingham, WA, US, July 7, 2004.*

A similar sentiment is revealed by Mauricio Doberti, Forest Engineer and ex-Trillium Manager of Río Cóndor Project 1994-97, Punta Arenas, February 23, 2004, "And I believe that this was one of Trillium's strategic errors, that of being too colonial upon their arrival, that is, a lot, a lot of smoke and mirrors and

spangles and that 'we bring the solution to all the problems,' etc, and a year-and-a-half or two years later a lot of suspicion had been created and by then nobody believed them."

Lessons for the Chilean State

As the Chilean state continues to depend on trade and investment linkages with the outside world, especially the North, their ability to guide natural resource-use and environmental policy-making continues to be shaped in part by actors beyond their sovereign borders. This is particularly evident as they engage in additional free trade agreements, which on the one hand offers new markets and trading partners and imposition of, for example, Northern-based environmental standards. However, on the other hand, trade agreements also further perpetuate Chile's export-oriented economy based on primary production. Consequently, the Republic of Chile is increasingly becoming limited in their options -- often limited to market-based strategies -- to ensure the protection of their natural resources. Inferring from people interviewed during my research, the Río Cóndor forest dispute has revealed important issues worth exploring for the state to meet its goal of sustainable development.

Hernán Verscheure, Forest Program Coordinator, CODEFF, Santiago, reveals some important issues not addressed during the Río Cóndor forest dispute that require attention by the state:

> There were a lot of issues, well some issues that weren't addressed in the Cóndor dispute was the role of the corporation and whether we should provide access to our natural resources to a foreign corporation wasn't in the debate. Or, whether today some forests need to be managed or not or just keep them to be managed by future generations. I don't know whether those forests need to be managed only for Chileans and not for foreigners, but that was an issue that wasn't addressed consistently, sometimes it appeared, but it was never kept as argument or developed as an argument. *Hernán Verscheure, Forest Program Coordinator, CODEFF, Santiago, October 20, 2003.*

Hernán Verscheure identifies an important question as to what extent foreign corporations should have access to the natural resources of Chile. Whose forests are they? Foreign corporations play a significant role in Chile's forest industry, suggesting the possibility of limiting access or somehow increasing control over the behaviour of the corporations appears a useful discussion to have. This, of course, is extremely difficult within the context of free trade agreements whose purpose, and constraining characteristics for increasing Chilean control over natural resources, is to ensure trade liberalization and a free flow of products. One way to approach this issue is perhaps through the topic of the sale of property in Chile to foreigners: "I think it is a country problem. I think it is very dangerous to sell property, Chilean property,

because nobody knows today who is behind this[49]. Unfortunately, the law doesn't forbid that, so you can purchase Tierra del Fuego tomorrow if you want, without any kind of protection, and I don't think that is very good for the future of the country" *Ricardo Salles, Intendente of Magallanes and Director of COREMA during peak forest dispute (mid-late1990s), Punta Arenas, February 26, 2004.* However, private property and market-oriented approaches to conservation remain paramount in the Republic of Chile, which leaves very little flexibility in exploring these ideas in a meaningful way.

In my opinion, an initiative that is perhaps more immediately attainable for the state is the urgent and already highly talked about requirement to resolve the now 14-year debate in Chilean Congress over the proposed Native Forest Law, which is supposed to legislate a national sustainable development strategy for the remaining native forests. In 1992, the Concertación proposed Proyecto De Ley Sobre Recuperación Del Bosque Nativo Y Fomento (The National Native Forest Recovery and Development Law or Native Forest Law) designed to institutionalize a national policy for sustainable development of the country's native forests. The proposed law is based on the idea that recovery and sustainable management of the remaining native forests can be achieved through economic incentives, reducing the tendency to substitute native forests for activities that accrue higher economic returns such as plantations. To date, the law remains in Congress because of opposition by different social actors who are concerned that it perpetuates a market-driven mentality of forest conservation and use. Regardless, the nation and international comrnunity are watching to see what happens when Chile legally commits to a national policy for sustainable development of the native forests, especially considering their commitment to sustainability through international agreements and conventions (for more information, see Silva, 1997).

Overall, and as evident in the Río Cóndor forest dispute, the Chilean state is faced with the historical and current political ecological context that also hinders the extent the Chilean state can employ, for example, initiatives for natural resource use and alleviating ecological degradation. However, in my opinion, immediate initiatives already presented in Chile are available in the form of the proposed Native Forest Law that could improve and/or generate regulations over native forest exploitation.

Lessons from the Environmental Movement

The environmental movement employed a range of initiatives, but litigation proved an extremely effective tactic. Not only did the movement link ecological concerns to human rights, which marked an

[49] The issue of selling land to foreigners whose intentions or ideas may be unclear to Chilean officials unfolded during the purchase of over 300,000 ha of land by American philanthropist, Douglas Tompkins in the 1990s. Juxtaposed against the Trillium project, Chile was faced with a competing approach to their normal market-oriented approach to conservation by Tompkins's Deep Ecology approach, which prioritizes the protection of the intrinsic value of nature. See Appendix IV and "Chapter 6" additions for more information.

effective conceptual strategy, but also the litigation itself forced the delay in implementing the project and countered the company's short-term economic objects. In addition, internationalizing the movement expanded the breath and scope of political pressure since they were able to connect with North American-based environmental groups who were knowledgeable and very effective in boycott and market campaigns. However, according to interviewees heard in Chapter 5, the international coalition revealed power dynamics and what can be described as a perpetuation of a neo-colonial legacy similarly to Trillium's behaviour. This realization is reiterated by Bishop Tomás González[50], Catholic Bishop, Region 12:

> Well, you know that there is even an institution called Greenpeace that is an institution that holds principles that I would say are interesting, but I don't know if they know each and every one of the projects well. There are also people with the Greenpeace mentality, that at heart aren't bad people, but it is necessary to know what development means, that is, that development on our island is different from development in the U.S. or Canada, [one that] naturally shows respect for people. *Bishop Tomás González, Catholic Bishop of Region 12, Punta Arenas, March 4, 2004.*

While the environmental movement is caught within a difficult political context where there is a limited tolerance for publicly critiquing core societal issues such as the export-oriented economic model, the consequences of their counter-hegemonic position situated within a relatively ecologically-narrow mandate appears to have disregarded the socio-economic needs faced by people in Tierra del Fuego. Whereas the movement was very successful in linking their criticism of the ecological integrity of the project with a human right during their litigation initiative, the campaign itself appears to have not included the socio-economic needs faced by the people in the communities of Tierra del Fuego. According to Ivette Martínez, Punta Arenas Representative, Defensores del Bosques Chileno, she had recommended the necessity of consulting and including local communities in their campaign:

> The whole fight against Trillium was something [carried out] more on the superstructure level. There was no direct work with the local community because the environmental organizations are (located) here in Santiago and they are 'superstructures', there is not a lot of work with communities. This is a critique that I made to the organizations, they should have centred their work far from here [i.e. in Tierra del Fuego], they should have sent staff, set up an office, sent in resources, done more publicity, [held] educational workshops, but this wasn't done. 'Superstructure' is when you stay at just the idea level, up above, you don't work with people, with the base, it's a fight at the superstructure level. Trillium did that [i.e. they did not stay at the 'superstructure' level], Trillium set up in Tierra del Fuego, paid a lot of people, held workshops, threw a lot of parties for the local population, they did a lot of work with the people there. The environmental movement did not connect with the local people. The movement didn't because there weren't resources or there weren't people [staff or personnel], and that's why it was a fight at the 'superstructure' level, [a fight of ideas], which was finally won through legal channels, with lawyers and appeals for legal protection filed in the Appeals Court (Punta Arenas) and the

[50] For more information on the perspective on conservation and the environment by Obispo Tomás González Morales, see Morales (1993).

Supreme Court (Santiago). *Ivette Martínez, Punta Arenas Representative, Defensores del Bosques Chileno, Santiago, October 7, 2003*

According to Sylvia Vera, Governor of Tierra del Fuego 1990-2000 and strong advocate for the Río Cóndor Project, Porvenir, Tierra del Fuego, March 3, 2004 claimed that the environmentalists never came to consult her about the project or offer the community an alternative to the Río Cóndor Project. In the end, Vera believed: "the environmentalists never cared about those of us who were living here, the people...[I came to the] conclusion that the environmentalists were worried more about the little worms and the disgusting mushrooms than the people" *Sylvia Vera, Governor of Tierra del Fuego 1990-2000 and strong advocate for the Río Cóndor Project, Porvenir, Tierra del Fuego, March 3, 2004.* In the end, for Vera, the environmentalists thwarted what amounted to be the only opportunity, at the time, to bring socio-economic development to Tierra del Fuego:

> To get to the heart of the matter. It was the only thing [opportunity] that seemed to bring development to Tierra del Fuego. It raised a lot of issues, a lot of disenchantment, because we saw a small group, a small group of people who lived in Santiago, in Europe, in the United States, it doesn't matter where they lived, but they had a lot of resources, a lot of resources. They threw a project off the table that the people dreamed would improve their standard of living. And this has caused, I would say, a different reaction over the course of [many] years. I think no one wants to talk [here] of a viable Trillium Project. Not even me. That's okay, (she laughs) - and I kept on saying that it's a good project! *Sylvia Vera, Governor of Tierra del Fuego, Porvenir, Tierra del Fuego, March 3, 2004.*

In contrast, Maria Luisa Robleto, Forest Campaign Director, Greenpeace South Pacific, Santiago, November 3, 2003, explains the fear for her life and the community's reaction to their presence in the community of Porvenir:

> Well, the relationship with the local community in Tierra del Fuego was a very bad relationship; in Punta Arenas it was very good. That is, I went there with a sense of security and all, but in Tierra del Fuego, it was truly scary because it was like [we were] enemies to the community, enemies to employment. So really, I didn't feel safe sleeping there. For example, one time even we arrived at a restaurant to eat and the owner of the restaurant told us that he wouldn't serve us. [In addition,] in Porvenir the Governor [Sylvia Vera] took the step of arranging for a protest against us and the way she did it was by putting up these black ribbons -- to simulate mourning -- on each and every one of the houses and she had flyers handed to everyone that said we were responsible for them not having jobs, for not having employment, for the company not being in operation. I was already physically scared, scared that they would beat me physically and this was all a campaign carried out by the Governor. *Maria Luisa Robleto, Forest Campaign Director, Greenpeace South Pacific, Santiago, November 3, 2003.*

In my opinion, one of the greatest challenges for the environmental movement in many parts of the world is designing strategies that bridge ecological concerns with social processes or socioeconomic realities such as employment. Here, the 'cult of wilderness' often dominates campaigns and agendas where

environmental groups appear fixated on protecting the biodiversity in "wild" or "virgin" landscapes: "The Río Cóndor forest is wild, not to be developed" *Pat Rasmussen, Forest-Americas Coordinator 1998-2004, American Lands Alliance, e-mail correspondence June 9, 2004.* While focusing on ecological issues has proven successful in terms of protecting ecosystems on the planet, I am not suggesting, in any way, that ecological issues be demoted in importance. Instead, I am advocating for more strategies that embrace both the ecological characteristics along with the socioeconomic realities of people, particularly when people's livelihoods are at stake and in the spirit of advancing effective strategies in alleviating ecological degradation. Consequently, in order to address socioeconomic needs, one needs to explore how and why society works the way it does and understand the social processes that influence our lives.

Inferring from my research data, the environmental movement in Chile is faced with considerable challenges. For example, the political climate categorizes many of the environmental groups as fundamentalists or against development. In addition, environmental groups face significant financial constraints, since there is insufficient funding available in Chile to carry out their mandates: "And there is very little, still little public funding for NGOs working on the protection of [the] public good. Up until recently, it has been considered almost a subversive activity so why should the government support the groups that antagonize the development trends for the country. So, we're not considered a legitimate community of social action" *Bernardo Reyes, Director of Environmental Economics Program, IEP, Santiago, October 10, 2003.* Interestingly, the environmental movement in Chile has more recently moved towards the stream of environmental justice, which indigenous groups such as the Mapuche in other regions of the country have long since employed in their resistance to colonialism and restitution of their land:

> During the late nineties and early 2000, it has changed a lot. It's moving -- a lot more towards environmental justice, so you can see now who the people are, mobilizing and demanding rights to stop highways or to stop essentially lots of garbage dumps, waste dumps -- are local communities, "we don't want your garbage here." And that's common everywhere in the country, there's lots of mobilization -- groups contesting the contamination of big mining companies and local poor people that have been around through the nineties. We have become more vocal in the last five years. *Bernardo Reyes, Director of Environmental Economics Program, IEP, Santiago, October 10, 2003*

According to Reyes, this is a result of the predominantly middle class membership of the environmental movement in its earlier years, which has since shifted to include lower class voices and links social issues to ecological issues. For Reyes, the advantage of the movement containing a middle-class membership has aided in launching these issues into the public discourse.

Overall, environmental groups continue to engage and adapt to an ever-changing world. In Chile, the movement has become a very powerful social actor, which inherently remains hopeful towards institutions that they will improve to alleviate environmental degradation and foster sustainability. However,

will changing institutions be sufficient to ward off Chile's ongoing path of environmental degradation particularly within the current political ecological context?

> They (Chileans) trust a lot that institutions will do better within the system. There is an essential trust that institutions can change. As I said before, if we don't change the underlining values we wish to glue together a society there is no change, there are some reforms, but the reform might be too late as in the case of Chile for safeguarding resources. You just have to look at the tragedy of the native forests or the tragedy that will be written soon of our fisheries and then in 10 years, 20 years from now there will be the tragedy of the mining industry, as was the tragedy of the [nitrate] industry and before that was the tragedy of the guano, the bird fertilizers. So, if we keep on thinking that we need more and the processes of accumulation is the essential driving force, then the limits are never clear. And, if there are no clear limits, there will always be institutions and people who will like to accumulate more, who will like to exploit more, who will like to go one step further. So today they may not be drilling in the native forests of protected national parks, just wait, in ten more years they will be. They will be there [like] they are drilling and exploiting protected areas in Colombia and Ecuador -- in all of the Americas. *Bernardo Reyes, Director of Ecological Economics Program, IEP, Santiago, October 10, 2003.*

In the end, the forest dispute comes down to the concept of sustainability, which is difficult to define since interpretations vary across different cultures and can change over time. This thesis does not explore the numerous definitions put forward by various cultures and instead interprets sustainability in terms that mean ecosystems, economic growth, timber harvest rates for example, can safely remain in their present general state or maintain its present course indefinitely. Important to this forest dispute and the different perspectives of sustainable development is the question of what exactly is being sustained when the various social actors employ initiatives to achieve sustainability in Tierra del Fuego. Mauricio Rosenfeld, Forestry Consultant/Professor at University of Magallanes, Punta Arenas, February 19, 2004 provides a summary of the position on sustainability of Trillium in contrast to that of the forest industry in Chile:

> What is understood by "sustainability," there are many visions. The Americans, they say, 'I harvest my forest, I regenerate my forest according to the [standard] techniques in use. If after 20 years I have a regenerated lenga forest, then what is the problem'? The sustainability of the species is guaranteed. We said, not the position of the environmental group, they saw other aspects, but we, the forestry sector, proposed a different scenario, we said, 'cut, use the forest, but [do it] to the extent that allows for guaranteeing the forest's [existence] in the future.

Rosenfeld explains these contrasting viewpoints of sustaining the individual species, such as the lenga species, versus sustaining the forest as whole. In other words, he presents a view similar to that of Herb Hammond's (1990) idea of 'wholistic' forest use where the forest is understood as a system of various ecological characteristics, which collectively make up a forest and its inherent dynamics. The environmental groups focused on ecological sustainability, which embraces the 'wholistic' perception of the forest as well,

but advocates for intervention only if there is sufficient ecological data known about the forest dynamics and to reduce the scale and intensity of the project to abide by ecological constraints.

Post-Río Cóndor Project

As of July 2004, Trillium was continuing to span the globe to pursue new opportunities to achieve the elusive goal of sustainable development through sustainable forestry. The jury remains out as to whether they will see their ideas materialize in a successful large-scale forest project. More importantly, if and when they do implement a project, such as their latest activities in Argentina and possible initiatives in the Boreal forests[51] in North America, an important question to ask is what exactly is being sustained?

> Well you have to always look forward, here's my latest thinking, if they in fact preserve that [the Río Cóndor property], then we are going to have for decades or maybe centuries, we are going to have a model of complete preservation, and so what I am hoping to do now, I have an option, through next August, one more year, to pay them $11 million and have all the Argentine lands. If we start small and prove ourselves, hopefully we can work with the government on their lands and then we'll have a model of sustainability in Argentina and there will be a model of preservation in Chile. And for people like you who are studying all this, it may be a more interesting situation than it would have been for us to do it in both countries. *David Syre, Chairmen and CEO of Trillium Corporation, WA, US, July 30, 2004.*

In addition, David Syre explains the possibility of launching a sustainable forest project with his sights now set on new opportunities in the Boreal forest in North America:

> It's pretty hard because there's really, there's very few single species hardwood forests anywhere in the world and for the most part, hardwoods don't like to grow that way. We are looking at birch in Alberta, British Columbia and Alaska, that's a possibility, there's a big band of birch (i.e. Boreal forest). We are getting the information, we are studying out in Alaska, there's quite a bit of birch on the rail system. So, if we could get 20 – 25 million feet sustainable, we'll look at a sustainable project up there. *David Syre, Chairman and CEO of Trillium Corporation, WA, US, July 30, 2004.*

Meanwhile, Magallanes had shifted towards a new regional development strategy focused on tourism and a perception that the forest is now more valuable intact:

> We just now understand or are starting to understand that these resources, which are renewable, might not be renewable when they are exploited irrationally. If the origins of the businessmen are unknown - their business ability [skills, style and objectives] I believe that this is fundamental and let's say that we are a lot more careful when it comes to approving projects. [We have learned] to discuss and to listen and to try to make sure that

[51] For map of the spatial distribution of the Boreal Forest, refer to: http://atlas.gc.ca/site/english/learningresources/theme_modules/borealforest/forest_regions.jpg/image_view Note: the map does not include the State of Alaska, US, which also contains Boreal forest.

> this resource that is scarce and unique is preserved for many years and [is] rationally exploited. *Francisco Sotomayor, Regional Director, CORFO, Punta Arenas, February 11, 2004.*

The perceived value of the forests in the Tierra del Fuego has shifted from a source of timber commodities to the commodification of the forest ecosystem as a valuable tourist destination. Sotomayor also explains how the Native Forest Law that has been debated in Congress has also meant that forestry activities on the island have been put on hold until the government determines the regulations and use of remaining native forests. On the one hand, the forests are being preserved, but whether the socioeconomic needs of local people will be met is yet to be realized. The people of Porvenir and Magallanes await their next opportunity for hope in the future:

> In this moment, [I] leave a message for you to take to the world, that Porvenir, Tierra del Fuego, is like what many call "God's pocket" where we have pure air, clean and pure water also. We consume natural foods, because here cows and sheep are not yet injected [with hormones], nor are chickens or any of that, do you understand? And [there is] safety for the citizens because, despite the isolation, we have [here], the people, are good and affectionate and wherever you go you are going to be received well. *Marta Soto Andrade, Community Leader in Porvenir, Porvenir, Tierra del Fuego, March 3, 2004.*

Reference List (Including for Appendix)

Adams, W. M. (2001). *Green development: Environment and sustainability in the Third World* (2nd ed.). London: Routledge.

Alvarez, S. E., Dagnino, E. & Escobar, A. (Eds.). (1998). *Cultures of politics/politics of cultures: Re-visioning Latin American social movements*. Boulder, Colorado: Westview Press.

Armesto, J. J., Rozzi, R., Smith-Ramí, C. & Arroyo, M. T. K. (1998). "Conservation targets in South America temperate forests." *Science*, Vol 282, Nov, Issue 5392, pp. 1271-1272.

Arroyo, M. T. K., Donoso, C., Murúa, R. E., Pisano, E. E., Schlatter, R. P. & Serey, I. (1996). *Toward an ecologically sustainable forestry project: Concepts, analysis and recommendations - protecting biodiversity and ecosystem processes in the Río Cóndor Project – Tierra del Fuego*. Chile: University of Chile.

Beck, U. (1992). *Risk society: towards a new modernity*. London: Sage.

Benton, T. (1994). "Biology and social theory in the environmental debate." In M. Redclift and T. Benton (Eds.), *Social Theory and the Global Environment (pp.28-51)*. London: Routledge.

Benton T. & Redclift, M. (Eds.). (1994). *Social theory and the global environment*. London: Routledge.

Blaikie, P. & Brookfield, H. (1987). *Land degradation and society*. London: Methuen.

Brohman, J. (1996). *Popular development: Rethinking the theory and practice of development*. Oxford: Blackwell Publishers.

Bryant, R. L. & Bailey, S. (1997). *Third world political ecology*. London: Routledge.

Burch, W. R. Jr. (1971). *Daydreams and nightmares: A sociological essay on the American environment*. New York: Harper and Row.

Buttel, F. H. (1987). "New directions in environmental sociology." *Annual Review of Sociology*, 13, pp. 465-488.

Buttel, F. H. (1997). "Social institutions and environmental change." In M. Redclift & G. Woodgate (Eds.), *The international handbook of environmental sociology* (pp.40-55). Cheltenham, UK; Edward Elgar Publishing Limited.

Calderón, F., Piscitelli, A. & Reyna, J. L. (1992). "Social movements: actors, theories, expectations." In A. Escobar & S. E. Alvarez (Eds.), *The making of social movements in Latin America: Identity, strategy, and democracy* (pp.19-37). Boulder, Colorado: Westview Press.

Camus, P. & Hajek, E. (1998). *Historia ambiental de Chile*. Santiago: Andros Impresores.

Carrere, R. & Lohmann, L. (1996). *Pulping the south: Industrial tree plantations and the world paper economy*. London: Zed Books Ltd.

Carruthers, D. (2001a). "Environmental politics in Chile: Legacies of dictatorship and democracy." *Third World Quarterly*, Vol 22, No 3, pp. 343-358.

--, (2001b). "From opposition to orthodoxy: The remaking of sustainable development." *Third World Studies*, 18 (2), pp. 93-112.

Castañeda, J. G. (1993). *Utopia unarmed: The Latin American left after the Cold War.* New York: Vintage Books.

Chile Supreme Court. (1997). "Supreme court decision, March 19, 1997" (No Title Available). Copy of decision received in person from Punta Arenas Regional Court on March 12, 2004.

Clapp, R. (1995). "Creating competitive advantage: Forest policy as industrial policy in Chile." *Economic Geography*, 71, No. 3, pp. 273-296. Retrieved September 8, 2004 from JSTOR database.

Claude, M., & Pizarro, R. (1995). "The Chilean environmental accounts project: Theoretical framework and results." Unpublished manuscript.

CONAF, CONAMA, BIRF, Universidad Austral de Chile, Pontificia Universidad Católica de Chile and Universidad Católica de Temuco. (1999). *Catastro y evaluacion de los recursos vegetacionales nativos de Chile.* Informe Nacional con Variables Ambientales, Santiago, Chile.

CONAF. (2005). "Historia." Retrieved June 22, 2005, from http://www.conaf.cl/?page=home/contents&seccion_id=3ad5aa8151dee7eff10bce13adcb0a9e&unidad=0&

CONAMA. (2002). *Reglamento del Sistema de Evaluación de Impacto Ambiental.* Gobierno de Chile.

Defensores del Bosque Chileno (Ed.). (1998). *La tragedia del bosque Chileno.* Santiago, Chile: Ocho Libros Editores Ltda.

Della Porta, D. & Diani, M. (1999). *Social movements: An introduction.* Oxford, UK: Blackwell Publishers Limited.

Dickens, P. (1992). *Society and nature: Towards a green social theory.* New York: Harvester Wheatsheaf.

Dietrich, B. (1997). "Harvest with care: Chile's Tierra del Fuego." *The Seattle Times*, Sunday, January 26. Retrieved July 25, 2004, from http://www.microseed.com/Press/19970126.htm

Dunlap, R. E. (1997). "The evolution of environmental sociology: A brief history and assessment of the American experience." In M. Redclift & G. Woodgate (Eds.), *The international handbook of environmental sociology* (pp.21-39). Cheltenham, UK: Edward Elgar Publishing Limited.

Dunlap, R. E. & Catton, W. (1979). "Environmental sociology." *Annual Review of Sociology*, 5, pp. 243-273.

Dwivedi, R. (2001). "Environmental movements in the Global South: Issues of livelihood and beyond." *International Sociology.* Vol 16 (1), pp. 11-31.

Eden, S. (2001). "Environmental issues: Nature versus the environment?" *Progress in Human Geography*, 25 (1), pp. 79-85.

Escobar, A. (1995). *Encountering development: The making and unmaking of the Third World.* Princeton, New Jersey: Princeton University Press.

Escobar, A. (1996). "Constructing nature: Elements for a Poststructural political ecology." In R. Peet & M. Watts (Eds.), *Liberation ecologies: Environment, development, social movements* (pp. 46-69). London: Routledge.

Forestal Trillium Ltda. (1993). "Stewardship principles." Copy received by David Syre, CEO and Chairman of Trillium Corporation during interview on July 30, 2004 (see Appendix VIII for copy).

Forestal Trillium Ltda. (1995). "EIA - Proyecto Forestal Río Cóndor (Primera Presentación)." Retrieved November 23, 2005, from http://www.e-seia.cl/seia-web/ficha/fichaPrincipal.php?id_expediente=22

Forestal Trillium Ltda. (1996). "EIA - Complejo industrial Bahía Gente Grande." Retrieved November 23, 2005, from http://www.e-seia.cl/seia-web/ficha/fichaPrincipal.php?id_expediente=1450

Forestal Trillium Ltda. (1997a). "Forestal Trillium a la opinion publica." Received copy from Teodoro Valdebenito Riquelme during interview in Porvenir, Chile, March 3, 2004.

--, (1997b). "EIA - Proyecto Forestal Río Cóndor (Segunda Presentación)." Retrieved November 23, 2005, from http://www.e-seia.cl/seia-web/ficha/fichaPrincipal.php?id_expediente=1096

Foster, J. B. (2000). *Marx's ecology: materialism and nature.* New York: Monthly Review Press.

Frank, A. G. (1969). *Capitalism and underdevelopment in Latin America: Historical studies of Chile and Brazil.* New York: Monthly Review Press.

Friedmann, J. & Rangan, H. (1993). *In defense of livelihood: Comparative studies on environmental action.* West Hartford, CT.: Kumarian Press.

Garretón, M. A. (2001). "Popular mobilization and the military regime in Chile: The complexities of the invisible transition." In S. Eckstein (Ed.), *Power and popular protest: Latin American social movements* (pp.259-277). Berkley: University of California Press, pp. 259-278.

Gates, M. (1993). *In default: Peasants, the debt crisis, and the agricultural challenge in Mexico.* Boulder, Colorado: Westview Press.

Giddens, A. (1990). *The consequences of modernity.* Stanford, California: Stanford University Press.

Gligo, N. V. (2002). *La batalla por los bosques de Tierra del Fuego.* Santiago, Chile: Ediciones Byblos.

Goldman Sachs. (2004). "Goldman Sachs to create a nature reserve in Southern Chile." Press release document received via email on March 5, 2004 from by Kathleen C. Barclay, representative of Goldman Sachs in Santiago.

Green, D. (1995). *Silent revolution: The rise of market economics in Latin America.* London: Cassell.

Guha, R. & Martínez-Alier, J. (1997). *Varieties of environmentalism: Essays north and south.* London: Earthscan.

Guzman, P. (Director). (1998). *Chile: Obstinate Memory.* [Video Documentary]. Canada: National Film Board.

Hammond, H. (1990). *Seeing the forest among the trees: The case for wholistic forest use.* Winlaw, B.C.: Polestar Press.

Hannigan, J. (1995). *Environmental sociology: A social constructionist perspective.* London, UK: Routledge.

Hertz, R. & Imber, J. B. (Eds.). (1995). *Studying elites using qualitative methods.* Thousand Oaks, CA: Sage.

Inglehart, R. (1990). *Cultural shift in advanced industrial societies.* Princeton: Princeton University Press.

INE (Instituto Nacional de Estadísticas). (2002). "Interactive map." Retrieved November 23, 2004, from http://www.ine.cl/ine/canales/chile_estadistico/demografia_y_vitales/censo2002/mapa_interactivo/mapa_interactivo.htm

Jenkins, M. B. & Smith, E. (1999). *The business of sustainable forestry: Strategies for an industry in transition.* Washington, D.C.: Island Press.

Jessop, B. (2002). "Liberalism, neoliberalism, and urban governance: A state-theoretical perspective." Retrieved January 15, 2005, from http://www.lancs.ac.uk/fss/sociology/papers/jessop-liberalism-neoliberalism.pdf

Kimmins, H. (1997). *Balancing act: Environmental issues in forestry* (2nd ed.). Vancouver: UBC Press.

Kohm, K. A. & Franklin, J. F. (Eds.). (1997). *Creating a forestry for the 21st century: The science of ecosystem management.* Washington, D.C.: Island Press.

Laclau, E. & Mouffe, C. (1985). *Hegemony and socialist strategy: Towards a radical democratic politics.* London, UK: Verso.

LaFranchi, H. (1998). "Eco-activists try to find a political niche in Chile." *Christian Science Monitor*, May 27, p. n/a. (For Internet link to article, see http://csmonitor.com/cgi-bin/durableRedirect.pl?/durable/1998/05/27/p11s1.htm retrieved September 15, 2005).

Langman, J. (1998). "Trillium's logging project wins." *BNA*, Vol 21, Number 20 September 30, pp. n/a.

Lara, A., Solari, M. E., Rutherford, P., Thiers, O., Trecaman, R., Molina, R., Prieto, R. & Montory. C. (1999). *Cobertura de la vegetación original de la ecoregión de los bosques Valdivianos en Chile hacia 1550.* Informe Técnico, Projecto FB 49 – WWF/Universidad Austral de Chile, Valdivia, Chile.

Leff, E. (1993). "Marxism and the environmental question: From the critical theory of production to an environmental rationality for sustainable development." *Capitalism, Nature, Socialism: Journal of Socialist Ecology*, 4 (1), pp. 44-66.

Leopold, A. (1949). *A sound country almanac.* London: Oxford University Press.

Lindenmayer, D. B. & Franklin, J. F. (2002). *Conserving forest biodiversity: A comprehensive Multiscaled approach.* Washington: Island Press.

Loveman, B. (2001). *Chile: The legacy of Hispanic capitalism.* New York: Oxford University Press.

Macnaghten, P. & Urry, J. (1998). *Contested natures.* Thousand Oaks, CA: Sage.

Marchak, P. (1988-89). "What happens when common property becomes uncommon?" *BC Studies*, No. 80, Winter, pp. 3-23.

Marchak, P. (1995). *Logging the globe.* Montreal and Kingston: McGill-Queen's University Press.

Martínez-Alier, J. (2002). *The environmentalism of the poor.* Cheltenham, UK: Edward Elgar.

Martinic, M. B. (1982). *La Tierra de los Fuegos.* Punta Arenas, Chile: Impresos VANIC.

Meadows, D. H., Meadows, D. I., Randers, J., & Behrens, W. W. III. (1972). *The limits to growth.* New York: Universe Books.

Mellor, M. (1992). "Eco-feminism and eco-socialism: Dilemmas of essentialism and materialism." *Capitalism, Nature, Socialism.* 3, 2 (10), June, pp. 43-62.

Melucci, A. (1996). *Challenging codes: Collective action in the information age.* Cambridge, UK: Cambridge University Press.

Merchant, C. (1992). *Radical ecology: The search for a livable world.* London: Routledge.

M'Gonigle, M. & Parfitt, B. (1994). *Forestopia.* Madeira Park (B.C.), Harbour Publishing.

Mies, M. & Shiva, V. (1993). *Ecofeminism.* New Delhi: Kali for Women.

Morales, Mons. T. G. (1993). *Proteger y conservar la naturaleza creada por Dios.* Santiago, Chile: San Pablo.

Nash, N. C. (1991). "For Tierra del Fuego, it's time to consider a rain forest's worth." *The New York Times*, Tuesday June 4, p. C4.

Neira, E., Verscheure, H. & Revenga, C. (2002). *Chile's frontier forests: Conserving a global treasure.* Global Forest Watch, an Initiative of the World Resources Institute. WRI, CODEFF, and Universidad Austral de Chile: Chile.

O'Connor, J. (1988). "Capitalism, nature, socialism: A theoretical introduction." *Capitalism, Nature, Socialism*, (1), pp. 11-38.

Odendahl, T. & Shaw, M. (2002). "Interviewing elites." In J. F. Gubrium & J. A. Holstein (Eds.), *Handbook of Interview Research: Context and Methods* (pp.299-316). Thousand Oaks, Calif.: Sage Publications.

Oppenheim, L. H. (1999). *Politics in Chile: Democracy, authoritarianism, and the search for development (2nd ed.).* US: Westview Press.

O'Riordan, T. (1976). *Environmentalism.* London: Pion Limited.

Oxhorn, P. (1995). *Organizing civil society: The popular sectors and the struggle for democracy in Chile.* Pennsylvania: The Pennsylvania State University Press.

Paley, J. (2001). *Marketing democracy: Power and social movements in post- dictatorship Chile.* Berkeley, California: University of California Press.

Peet, R & Watts, M. (Eds.). (1996). *Liberation ecologies: Environment, development, social movements.* London: Routledge.

Pepper, D. (1993). *Eco-socialism: from deep ecology to social justice.* London: Routledge.

Pepper, D. (1996). *Modern environmentalism: An introduction.* London: Routledge.

Plumwood, V. (1993). *Feminism and the mastery of nature.* London: Routledge.

Rebertus, A. J. (1993). "Structure and tree-fall gap dynamics of old-growth Nothofagus forests in Tierra del Fuego, Argentina." *Journal of Vegetation Science*, 4 (5), pp. 641-654. Retrieved June 15, 2004 from JSTOR database.

Rebertus, A. J., Kitzberger, T., Veblen, T. T. & Rooversc, L. M. (1997). "Blowdown history and landscape patterns in the Andes of Tierra del Fuego, Argentina." *Ecology*, Vol. 78, No. 3, pp. 678–692. Retrieved June 15, 2004 from JSTOR database.

Redclift, M. (1987). *Sustainable development: Exploring the contradictions.* London: Routledge.

Redclift, M. (1999). "Sustainability and sociology: Northern preoccupations." In E. Becker & T. Jahn (Eds.), *Sustainability and the social sciences* (pp.59-73). Paris, France: UNESCO/Zed Books.

Reyes, B. (2002). "Trillium: Lessons learned from a conflict over Patagonian forests in southern Chile." Paper submitted at international conference: *Toward Adaptive Environmental Conflict Resolution: Lessons from Canada and Chile*, Liu Centre, University of British Columbia, September 25-27, Vancouver, Canada.

Roberts, K. (1998). *Deepening democracy? The modern left and social movements in Chile and Peru.* Stanford, California: Stanford University Press.

Rojas, A. (1994). "The environmental movement and the environmentally concerned scientific community in Chile." *European Review of Latin American and Caribbean Studies*, 56, June, pp. 93-118.

Rostow, W. (1960). *The stages of economic growth: A non-communist manifesto.* Cambridge, England: University Press.

Sachs, W. (Ed.). (1993). *Global ecology: A new arena of political conflict.* London: Zed Books.

Sachs, W. (1997). "Sustainable development." In M. Redclift & G. Woodgate (Eds.), *The international handbook of environmental sociology* (pp.71-80). Cheltenham, UK: Edward Egar.

Schmidt, H., Cruz, G., Promis, A. & Alvarez, M. (2003). *Transformacion de los bosques de lenga virgenes e intervenidos a bosques manejados: Guia para los bosques demostrativos.* Santiago, Chile: Universidad de Chile, Facultad de Ciencias Forestales, Publicaciones Miscelaneas Forestales No 4.

Schnaiberg, A. & Gould, K. A. (1994). *Environment and society: The enduring conflict.* N.Y.: St. Martin's Press.

Shaw, K. (2004). "The global/local politics of the Great Bear Rainforest." *Environmental Politics*, Vol. 13, No. 2, Summer, pp. 373-392.

Sheppard, H. (1999). "Native forest protection in Chile: The inadequacies of the recent environmental framework law and relevant multilateral instruments." *Journal of Environmental Law and Litigation*, 14, (1), pp. 225-299.

Silva, E. (1996). "Democracy, market economics, and environmental policy in Chile." *Journal of Interamerican Studies and World Affairs*, Vol. 38, No. 4, pp. 1-33. Retrieved August 6, 2004 from JSTOR database.

Silva, E. (1997). "The politics of sustainable development: Native forest policy in Chile, Venezuela, Costa Rica and Mexico." *Journal of Latin American Studies*, 29, pp. 457- 493. Retrieved on May 20, 2004 from JSTOR database.

Sitarz, D. (Ed.). (1993). *Agenda 21: The earth summit strategy to save our planet.* Boulder, Colorado: Earth Press.

SSDC (Social Sciences Data Collection). (1996). "Lumber company damages forests." Retrieved October 17, 2003, from http://ssdc.ucsd.edu/news/chip/h96/chip.19960412.html#a1

Stephen, L. (1997). *Women and social movements in Latin America: Power from below.* Austin Texas: University of Texas Press.

Stonich, S. C. (1993). *'I am destroying the Land!' The political ecology of poverty and environmental destruction in Honduras.* Westview Press: Boulder, USA.

Sweezy, P. & Magdoff, H. (1989). "Capitalism and the environment." *Monthly Review*, 41 (2), June, pp. 1-10.

Taylor, L. (1998). *Citizenship, participation, and democracy: Changing dynamics in Chile and Argentina.* New York, N.Y.: St. Martin's Press.

Touraine, A. (1988). *Return of the actor: Social theory in postindustrial society.* Minneapolis: University of Minnesota Press.

Trillium Corporation. (2004). "About us." Retrieved June 21, 2004, from http://www.trilliumcorp.com/about.html

Wilcox, K. (1996). *Chile's native forests. A conservation legacy.* USA: NW Wild Books.

WCED (World Commission on Environment and Development). (1987). *Our common future.* Oxford, UK: Oxford University Press.

WCFSD (World Commission on Forests and Sustainable Development). (1999). *Our forests our future.* Cambridge: Cambridge University Press.

Yearley, S. (1991). *The green case: A sociology of environmental issues, arguments, and politics.* London: Harper Collins Academic.

Yearley, S. (1996). *Sociology, environmentalism, globalization.* London: SAGE.

Vanniere, B. & Maurette A. (1995). *Auditoria ambiental de los bosques nativos de lenga de la patagonia.* Office National del forêts – Francia.

Vera, J. (1998). *Estimaciòn de subsidios directos e indirectos para el Proyecto Río Cóndor.* Document received directly from author, publication location and press n/a.

Vera, J. (1999). *Propuesta de valoración del seguro ambiental para el Proyecto Río Cóndor en Tierra del Fuego.* Series: Documentos de debate, No. 27, Programa Economia Ecologica. Santiago: IEP.

Zimmerer, K. (1996). "Discourses in soil loss in Bolivia." In R. Peet & M. Watts (Eds.), *Liberation ecologies: environment, development, social Movements* (pp.110-124). London: Routledge.

Zimmerer, K. S. & Bassett, T. J. (Eds.). (2003). *Political ecology: An integrative approach to geography and environmental-development studies.* New York: The Guildford Press.

Websites (listed in the order they appear in the thesis)

Wikimedia: http://commons.wikimedia.org/wiki/Image:Mapa_administrativo_de_Chile.png
Terram: http://www.terram.cl/
Chilean Government:
http://www.chileangovernment.cl/index.php?option=com_content&task=view&id=60&Itemid=36
Red Nacional de Acción Ecológica/ National Network for Ecological Action: http://www.renace.cl/
Defensores del Bosques Chileno/Defenders of the Chilean Forests: http://www.elbosquechileno.cl/
Comité Nacional pro Defensa de la Fauna y Flora/National Committee for the Defence of Flora and Fauna
http://www.codeff.cl/
Instituto de Ecología Política /Political Ecology Institute: http://www.iepe.org/

Fundacíon para el Desarrollo de la XII Region Magallanes/Foundation for the development of Region 12 Magallanes: http://www.fidexii.cl/
Greenpeace International: http://www.greenpeace.org/international/about/how-is-greenpeace-structured
Georgetown University: http://www.georgetown.edu/pdba/Constitutions/Chile/chile.html
La Prensa Austral: http://www.laprensaaustral.cl/lpa/noticias_anteriores.asp?id=9762
Gondwana: http://www.gondwana.org/
Native Forest Network: http://www.nativeforest.org/campaigns/gondwana/
Convention on Biological Diversity: http://www.biodiv.org/programmes/areas/forest/definitions.asp
Boreal Forest in North America:
http://atlas.gc.ca/site/english/learningresources/theme_modules/borealforest/forest_regions.jpg/image_view
Goldman Sachs: http://www.gs.com/our_firm/the_culture/social_responsibility/tierradelfuego/index.html

Appendix I: A Timeline of the Río Cóndor Dispute

1991 August: Chilean Treasury sells 71,085 ha. of land in the Tierra del Fuego to Cetec-Sel Ltd. for 133 million pesos (approximately US$378,000 or $5/hectare).

1993: Trillium Corporation acquires total landbase of 272.729 hectares on Tierra del Fuego, Chile which includes 3 areas: Vicuña, Lago Escondido y Puerto Arturo.

1994: Forest Project preparation launched and company is registered in Chile as Forestal Trillium Ltda.: capital investments secured from Trillium Corporation (60%) and Bayside Ltd. (40%).

1994: National Environmental Framework Law, 19.300, is enacted and institutionally embodied as the Chilean National Environmental Commission (CONAMA).

1994 (Late): Trillium Corporation acquires forest property in Argentina (approx. 70,000 ha) where they are registered as Lenga Patagonia.

1994: Trillium Corporation hires Dames and Moore (of Washington State, US) to prepare Environmental Impact Assessment.

1994 (November) – 1995 (March): Independent Scientific Commission undergoes ecological data gathering on the Río Cóndor Property.

1995: First EIA proposal submitted to CONAMA Punta Arenas; approved in the same year.

1996: Parliamentarians and environmental groups challenge COREMA's approval of 1st EIA in Punta Arenas regional courts.

1996: Punta Arenas Regional Court rules in favour of COREMA's decision. Parliamentarians and environmental groups take appeal to the Supreme Court of Chile.

1997 (March 19): Supreme Court in Chile rules 1st EIA is "invalid and arbitrary."

1997 (April): Regulatory framework for Law 19,300 and for the Environmental Impact Assessment System is enacted.

1997 (August 26): Trillium/Savia submits 2nd EIA.

1998 (May 11): Punta Arenas Regional Court rules against appeal from parliamentarians/environmental groups because the appeal was issued after period of submission expired. Appeal was based on the claim that COREMA's February 11, 1998 approval of the 2nd EIA was "illegal and arbitrary."

1998 (May 29): CONAMA upholds COREMA's approval of Trillium Corporations 2nd EIA.

1998 (July 14): Supreme Court of Chile rules in favour of parliamentarian's appeal of Punta Arenas May 11 decision by declaring Punta Arenas Regional Courts must address the lawsuit by the parliamentarians/environmental groups.

1998 (July 30): Punta Arenas Regional Courts respond to Supreme Court July 14th ruling by again rejecting the appeal that Punta Arenas Regional Courts must address the lawsuits by the parlimentarians/environmental groups; another appeal is taken to the Supreme Court in Santiago.

1998 (September 22): Supreme Court rejects parliamentarians/environmental groups' appeal of July 30th Punta Arenas Court's decision. Trillium is given judicial approval to begin the Río Cóndor forest project.

1999-2000: Trillium harvests approximately 500 ha. of lenga forest.

2000: Trillium meets with CONAMA to present a new forest management strategy involving salvage logging, forest retention for carbon sequestrian credits (linked with Kyoto Protocol 1992) and ecotourism but no EIA is submitted.

2002 (February): Goldman Sachs acquires portfolio of distressed debt from Capital Consultants. Trillium's delinquent notes and related entities (forest land in Chile, sawmill in Punta Arenas and additional forest lands in Argentina) were included in this portfolio (Goldman Sachs, 2003).

2002 (November): Goldman Sachs (the Firm) sues Trillium Corporation in the US "for payment on the notes and to enforce the guarantees and the related security for payment of the notes" (Goldman Sachs, 2003, p. 1).

2003 (October 21): Parties settle litigation. Under settlement, the Goldman Sachs Charitable Fund has taken title (separate entity to the Firm in the US under New York law – funded by the firm to encourage and assist wide range of charitable, educational, literary, and artistic activities around the world) (Goldman Sachs, 2003).

2003 (December 5): In exchange for the Trillium Corporation's obligations for the outstanding notes, the Goldman Sachs Charitable Fund acquires title of Trillium's Chilean forestry lands and the mill in Punta Arenas (Goldman Sachs, 2003).

2004 (February 16): Forestal Savia notifies CONAMA in Punta Arenas the Río Cóndor Project is terminated.

2004 (early) The intention of Goldman Sachs Charitable Fund will be to work with international and Chilean conservation organizations over the next year with the objective of creating a reserve to ensure the key ecological features of this land are protected for the people of Chile (Goldman Sachs, 2003). Details of what this reserve will entail and who will manage the property will be announced in the latter half of 2004. Goldman Sachs will remain owner and advisor to the Charitable Fund during the transition of managerial control to a conservation organization. Transfer of Argentinean forestry lands owned by Trillium to Goldman Sachs remains subject to prior approval by the Argentinean government.

2004 (September): The Goldman Sachs Charitable Fund announces a partnership with Wildlife Conservation Society (WCS) whose responsibility it is to manage and protect the key ecological features of the land and for the people of Chile. For more information of Goldman Sachs and the partnership with WCS over the new nature reserve in Tierra del Fuego. For more information, see: http://www.gs.com/our_firm/the_culture/social_responsibility/tierradelfuego/index.html

Appendix II: Photos

Figure 3 Child's crib made of lenga wood. Photo by W. Crosby (2004) taken at Famapal Ltda. in Punta Arenas, Chile.

Figure 4 Rodrigo Sirón standing in MICSA's smoldering remains of lenga woodchips in Punta Arenas, Chile. Photo by W. Crosby 2004.

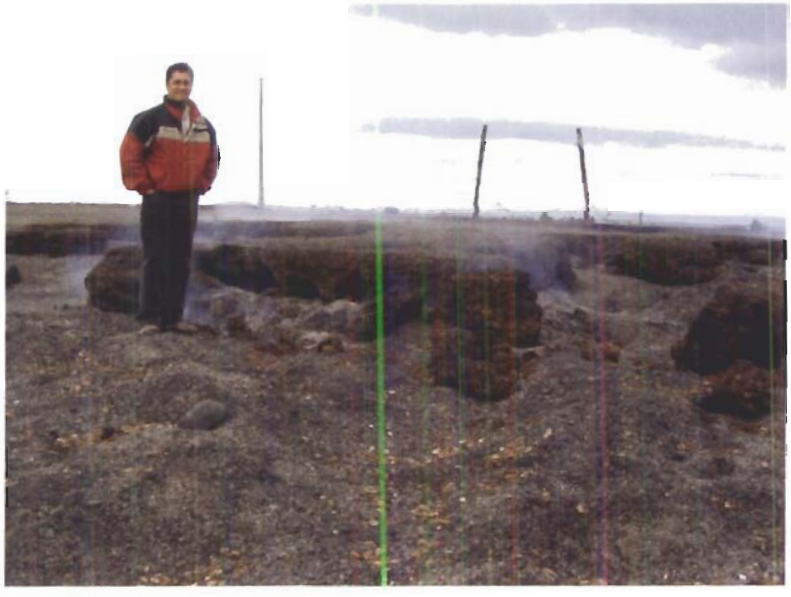


Figure 5 Río Cóndor delta with Cordillera Darwin mountain range in background. Photo by W. Crosby 2004.

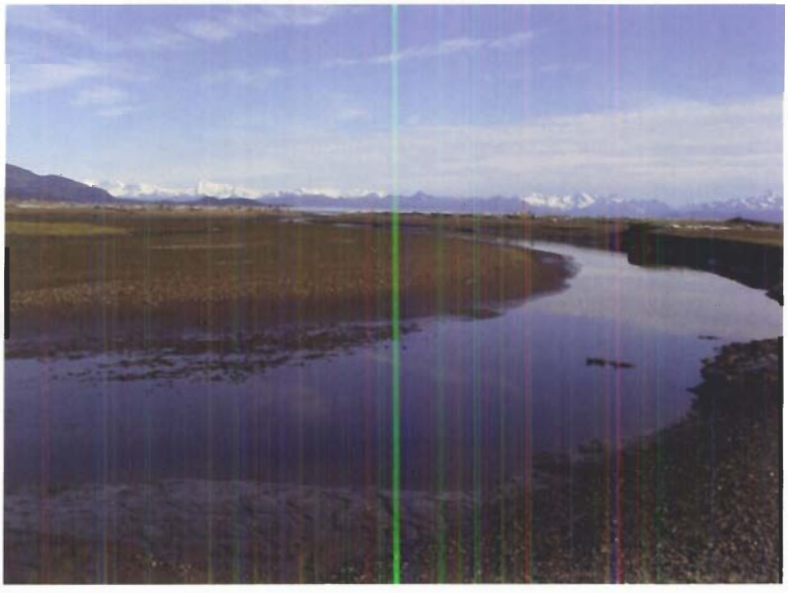


Figure 6 Non-harvested naturally occurring monoculture forest of lenga species in Vicuña Estancia sector. Photo by W. Crosby 2004.

Figure 7 Harvested stand (Shelter-wood method) of lenga in Vicuña Estancia sector. After regeneration of the forest is assured after approximately 15 years, the remaining old-growth timber is harvested and the managed forest is established. Photo by W. Crosby 2004.

Figure 8 Damaged Lenga forest in Vicuña Estancia sector caused by non-native beaver. Photo by W. Crosby 2004.

Figure 9 View of Río Cóndor landscape with peat bogs in the foreground and the predominantly lenga forest in the background in Vicuña Estancia sector. Photo by W.Crosby 2004.

Appendix III: Some Relevant Chilean Environmental Laws & International Agreements/Conventions

Forest Legislation

Forest Decree 256, 1931: mandate to protect forests and halt destructive activities destroying forestlands; created regulatory measures for forest intervention and creation of protected areas.
Forest Development Law (Law 701). 1974: designed to increase forest related activities with 75% subsidies for the costs of reforestation of lands not covered with vegetation; introduced the idea of a management plan for intervention; key law for creating plantation-based fibre source industry in Chile.
Law 18,348 1984: embodied as CONAF and Protection of Renewable Natural Resources (not legally binding).
Law 18,362, 1984: National System of State-Protected Areas (SNASPE) (not legally binding).
Law 19,300, 1994: Environmental Framework Law of Chile.
Law 19,300, 1997: Regulation Framework for System of Environmental Impact Evaluation.

International Environmental Agreements/Conventions

Convention on Nature Protection and Wildlife Preservation in the Western Hemisphere, 1940: signed by Chile in 1940 and put into force in 1968; shapes SNASPE objectives.
Antarctic Treaty System (ATS), 1959: designed to regulate international relations over Antarctica.
United Nations Conference on Environment and Development, 1992: Statement of Principles for the Sustainable Management of Forests was adopted; key agreement in motivating Chile towards and environmental law.
Convention on Biological Diversity (Rio de Janeiro), 1992: ratified in 1994 (not legally binding): conserve biodiversity, sustainable use of its components, and equitable participation in benefits derived from biodiversity and genetic resources" (Neira et al., 2002, pp. 26-27).
Montreal Process: Chile signed "Santiago Declaration" in 1995 - national level set of criteria and indicators for monitoring progress towards sustainable use of resources; not legally binding.
United Nations Framework Convention on Climate Change, 1992: signed in 1992; not legally binding.
Kyoto Protocol, 1992: Designed to reduce greenhouse gas emissions at least 6% lower than 1990 levels by the year 2012 (Chile is a member country since 1992).
Antarctic-Environmental Protocol, 1991: Component of Antarctic Treaty 1959; signed by Chile in 1991 and ratified in 1997; objective of protecting Antarctic environment and dependent/associated ecosystems.

Appendix IV: Additional Material and Interview Excerpts

Below is a brief discussion on my philosophical position in terms of our, human beings, relationship with the physical or biophysical world. I also provide insight into the emergence of Environmental Sociology as a sub-discipline of Sociology and why Sociology has not traditionally embraced the epistemological domain of ecological issues:

Understanding what it is to be human in the context of our relations with the "environment" is a lively and contested sphere that demands an open mind, thoughtfulness and imagination. I believe most human beings can agree on the reality that we have a distinct relationship or existence with the biophysical domain[52]. Humans understand this relation from a number of culturally defined cognitive or behavioral perspectives; for example, how we talk about 'nature' or how we physically exploit it for our biological needs and socially constructed 'wants'. Possibly more important is our physiological relationship, which reminds us that the human body is made of elements of the biophysical domain. As humans, we have created a range of analytical tools and ways of seeing this relationship in hopes of understanding the position, purpose, or role of humans in relation to the biophysical domain.

For example, inferring from extensive sources of empirical studies, the natural sciences have contributed greatly in shaping our understanding of this relationship. Their role has informed the way in which the Western world perceives and utilizes the natural world, but it has also helped us to understand that our physical anatomy is composed of organic elements found in the physical domain such iron, calcium, or magnesium to name but a few. In addition, we are biologically dependant on characteristics or features of the biophysical domain for survival such as our organic needs for oxygen, water, and energy nutrients. We are a species originating from the biophysical domain and our spatial and historical behaviour in relation to it directly or indirectly influences all species on this planet, including ourselves. For Benton (1994), "We remain both unavoidably organically embodied and ecologically 'embedded'" (p. 41). This perspective of our relationship with the environment is often over-looked in debates surrounding the extent that humans are intervening in the physical world and questions that arise from the degree that our intervention is resulting in negative repercussions for human survival, and all other species and ecosystems on this planet. Although

---

[52] The biophysical domain represents the space between human's socially constructed interpretation and the knowable physical or objective world around us. This word replaces the "environment", "ecosystem" or "biosphere." I believe each of these classifications imply different meanings of our interpretation of the interaction with and perception of the world around us and therefore I chose the most encompassing term to represent them all. However, for the sake of not using "biophysical domain" repeatedly throughout this thesis, I will interchange different terms such as "environment" or "physical world" to represent the knowable objective world, but maintain the understanding of it as a social construct.

over-simplified, this perspective is a useful reminder because I believe we lose sight of or ideologically contort this basic relationship when upholding values such as material wealth, progress, and development.

Environmental Sociology Origins

Generally described as the study of the interaction between the environment and society, the field of Environmental Sociology has developed in the Western world largely in response to the emergence of a widespread environmental consciousness in the 1970s and the increasing societal attention to environmental problems (Dunlap & Catton, 1979). The field has also emerged in response to reflexive criticism of Sociology's epistemological traditional of excluding environmental issues. Until the mid-1970s, Sociology's contribution to examining environmental problems was sparse, unlike the efforts of other social science disciplines such as Geography (Macnaghten & Urry, 1998). The analytical neglect of environmental problems and ecological constraints did not develop accidentally (Dunlap & Catton, 1979). Sociology was seeking autonomy from other disciplines as the pervasive biological and geographical determinist theories began losing credibility during Sociology's formative years in the 19th century[53] (Hannigan, 1995). Dunlap & Catton (1979) explain that Sociology moved away from the reductionist thinking of the evolutionary, biologically determinant perspectives, not out of logical necessity, but to differentiate itself as a distinctive body of knowledge of society. Consequently, social theories of both the left and the right tended to either "externalize" the role of the environment, or to include it in with structural or super-structural domains as something that would be addressed after social change occurred. In addition, the use of the term "environment" contributed to Sociology's neglect of ecological issues because of how the term, 'environment,' was used in the context of social and cultural domains (as sources of variation in human behavioural patterns) as opposed to referring to ecological factors or elements affecting human behaviour and society (Dunlap & Catton, 1979).

As such, when Sociology emerged in the 20th century as a distinct discipline, its anthropocentric focus on the social sphere (e.g., social structures, organizations, culture, stratification) shaped what Dunlap & Catton (1979) call the 'human exemptionalism paradigm' (HEP). This paradigm speaks to the idea that although humans can be perceived as having exceptional characteristics, (e.g., culture, social organizations, language, technology), this does not mean we are somehow exempt from environmental influences and

[53] This is not to say geographic determinism was 'dead' during Sociology's formative period. For some scholars such as Ellen Semple, America's first influential female geographer, or political leaders such as Adolph Hitler, geographic determinism continued to shape people's ideas whether for intellectual purpose or political objectives such as the German term, Lebensraum, which literally translates to "room to live". The Third Reich embraced the idea of lebensraum, which had become synonymous with colonial expansion but not in terms of conquering non-European lands as countries like Spain or Britain did for example. Instead, the Third Reich interpreted lebensraum in terms of expanding Germany within Europe where Germans can remain physically connected to their homeland thereby increasing their "room to live." Hitler's interpretation of Lebensraum shaped the Third Reich's foreign policy for easterly expansion into Russia, in which they linked their racial ideas of eugenics and the genocide of Jewish people.

constraints. In other words, we must face the reality that we cannot disregard the physical or material aspects of the environment and that human behaviour influences and is influenced by the environment. The unintentional consequence of perceiving humans as exempt from ecological constraints meant that Sociologists were overlooking how "human societies necessarily exploit surrounding ecosysterns in order to survive, but societies that flourish to the extent of overexploiting the ecosystem may destroy the basis of their own survival" (Burch 1971, p. 49 as cited in Dunlap & Catton, 1979, p. 250).

Before the development of Environmental Sociology, the examination of environmental topics in Sociology was limited to a few studies focusing on natural resources by Rural Sociologists and built environments by Urban Sociologists (Dunlap & Catton, 1979). Since then, other streams of inquiry have arisen in studies of environmental movements and public attitudes towards environmental issues, claims made around environmental problems and environmental policy (Dunlap, 1997). However, this type of research continues to apply mainstream sociological perspectives (Dunlap, 1997) or to treat environmental problems similarly to other social problems (Hannigan, 1995). As such, the 'social exclusivity' perspective in explaining environmental issues is known as the 'Sociology of the Environment' as opposed to 'Environmental Sociology' whose analysis does not neglect the role of the physical world influencing societies and our behaviour.

A key moment for the emergence of Environmental Sociology occurred in the 1970s when societies began facing the consequences of energy and other resource scarcities (Dunlap, 1997). The scarcity of resources forced people to recognize not only the reality of ecological limits that societies face, but also to understand the physical environment "as a factor that may influence (or be influenced by) social behaviour" (Dunlap & Catton, 1979, p. 255). Consequently, Environmental Sociology was able to contribute to the perspective that the 'environment' was not just another social problem and does influence society (Dunlap, 1997). However, this also raises an important debate in Environmental Sociology, which questions the extent the bio-physical domain is socially constructed as opposed to containing an 'objective' or external world existing in and of itself (see Dickens, 1992 and Macnaghten & Urry, 1998).

The classic debate between the biological versus the social nature of human societies implicitly shapes much of the Environmental Sociology literature. Dunlap & Catton (1979) weigh in on recognizing the need for realist perspectives in contrast to the idealist fixation on the social sphere, along with Buttel (1987) who calls for a retention to the relativism inherently found in idealist hyper-constructivist positions. The idealist position has contributed greatly to the growing body of literature in the Sociology of Knowledge and deconstructive approaches to authority, knowledge, science, and modernity (for example, Beck, 1992; Giddens, 1990; Macnaghten & Urry, 1998; Yearly, 1991 and 1996). Although the realist versus idealist spectrum is presented here as a dichotomy, Buttel (1997) argues that there are opportunities for cross-

fertilizing the two positions to allow for the synthesis of the physical and social dimensions of environmental change. An additional point of contention in Environmental Sociology include how Sociology has embraced a Cartesian dualistic perspective in terms of conceiving society in relation to the physical world in terms of 'society versus nature' (see Buttel, 1987; Benton, 1994).

In identifying what Environmental Sociology studies (see also Buttel, 1987), Hannigan (1995) claims that Environmental Sociology continues to lack a theoretical footing or a seminal body of literature. Meanwhile, other disciplines, in particular in the natural sciences, continue to broaden our understandings of ecological issues. According to Macnaghten & Urry (1998), Environmental Sociology has succumbed to a division of labour between the social and natural sciences where Sociology grafts or borrows environmental knowledge from the natural sciences. However, scholars such as Macnaghten & Urry (1998) offer and discuss theoretical opportunities to solve this issue by advocating for the expansion of social constructionism into the natural science domain and within societal issues in general such as Beck's (1992) 'risk society' analysis.

Environmental Sociology encompasses a range of scholars articulating varying epistemological approaches. Schnaiburg & Gould (1994) present a political economic perspective linking the environmental crisis to the 'treadmill of production' – the idea that modern capitalism and the state perpetuate a fundamental logic of promoting economic growth and capital accumulation, which appears to have a self-reproductive nature. Consequently, the perpetuation of the process resembles that of a 'treadmill'. Ecologically speaking, the 'treadmill of production' degrades both the environment (i.e., by exploiting natural resources) and creates pollution (i.e., as a sink for wastes or production by-products). The field of gender studies has contributed to Environmental Sociology by arguing that the basis of modernity rests on a dualistic patriarchal social structure that subordinates women and the environment (see Mellor, 1992; Merchant, 1992; Mies & Shiva, 1993; Plumwood, 1993). Overall, Buttel (1997) identifies three major issues Environmental Sociology is focused on which include examining the idea of 'growth' as a precursor for solving environmental problems, exploring how political and economic institutions contribute to environmental issues and lastly, examining the origins and significance of environmentalism.

This thesis supports the slippery idea that the biophysical domain consists of a "physical" objective world, but that we interpret and transform it accordingly to our culturally defined cognitive constructions, which we label as the "environment," "physical world" or "natural world." This socio-ecological perspective also recognizes that ecological issues encompass various degrees of both physical and intellectual domains, and therefore require an interdisciplinary approach. Research on ecological issues of necessity requires the appropriate blending of knowledge and expertise from various disciplines (e.g., including Geography, Anthropology, Biology, Philosophy, Economics) in hopes of presenting a perspective deemed

appropriate for the complexity embedded in examples such as the Río Cóndor forest dispute. Therefore, it is imperative to relax disciplinary boundaries not only in the social sciences, but also within and between natural sciences since environmental problems transcend traditional barriers (Benton & Redclift, 1994; Dickens, 1992).

Additional Interview Transcripts

Below are extracts from additional interview transcripts of important themes that emerged in the thesis. I selected these issues to provide additional background on key topics, which enrich our understanding of the Río Cóndor forest dispute but were edited from the main text due to space constraints.

Factors not studied in the Independent Scientific Commission's research

As discussed in Chapter 5, there were criticism raised on the Independent Scientific Commission's ecological data. In particular, additional discussion of Nicolo Gligo's thoughts on the two main problems not studied in Trillium's EIA are included below:

> Large problem in the TdF, two main problems not studied: first problem is the cycle of the nutrients. What does this mean, how the recycling process from the tree to the ground -in TdF there is practically no soil. The nutrients are in the air so if you get rid of the tree, you get rid of the nutrients. Why is there no soil is because there is not temperature, no decomposition. [The second problem is regeneration of the lenga] Now, the lenga cuts it, there is a lot of regeneration, just a little bit of light is needed for regeneration. There is no guarantee [that] the trees will be successful because there is a fight for light. This has not been studied. We know there are sectors with high regeneration and then the tree [grows correctly] but there are other sectors that are completely bare.

> I mean you have a lot of soil, in the tropics there is very little soil. So, one of the arguments [by the company was?] they said that the forest were overly mature, why? Because they saw an old tree, rotten tree before it fell. Now, Jorge Morelo and I did a study and we conducted an investigation and we realized that a survival strategy of the ecosystem because different regions, a tree will fall and then will decompose. In cold regions there is no decomposition so the tree stays where it is and rots. It only falls when it is ready to become part of the nutrients. None of this was known. There is no knowledge of the tremendous effects of nutrients.

> The lenga has a strange system. The roots intertwine and also the foliage, the canopy. Now, the system of cutting with the protected system with all the trees laid out in this fashion and one cuts 60% of those trees- the trees are left unprotected and the wind just knocks them down...but this is not studied. *Now, the lenga cuts it, there is a lot of regeneration, just a little bit of light is needed for regeneration. There is no guarantee the trees will be successful because there is a fight for light. This has not been studied. We know there are sectors with high regeneration and then the tree [grows correctly] but there are other sectors that are completely bare.* Who studied this? Nobody. No elements say, ya, we can intervene. All the research was done in Magallanes for the Trillium project.

Shelterwood Harvesting

In Chapter 4, we heard from Dr. Jerry Franklin who discussed his thoughts on the forest management strategy proposed by Trillium and instead suggests that the shelterwood harvesting was inappropriate for the landscape in Tierra del Fuego. Below is additional information pertaining to this issue as well as his thoughts on Chilean forestry in general:

> So I decided that I was really going to push for a move to group selection as the basis of management because Chilean forest service was influenced primarily by German foresters, the German foresters believed in even-aged managed so it was, you know, just a tradition. Having to do with who happened to train the Chilean foresters and what the attitude of their foresters [x will] be. Not that it wouldn't work, it might have worked, but it wouldn't have been the most ecologically appropriate system because its not the natural pattern of disturbance there. If you want to do a really ecological approach to the forest, you try to model as closely as you can on natural disturbance regime and that's basically shifting a gap-based system, shifting those aggregative-aged classes based on wind throw -- probably looking at no more than a couple of acres.

Environmental movement and Civil Disobedience

In Chapter 5 we heard from Maria Luisa Robleto who provided us with a sense of the her experiences in civil disobedience during the Río Cóndor forest dispute. Below is the complete discussion on her experiences, which I think reveals the creativity and sense of humour environmentalists in Chile have:

> The one [that had] the most impact was when they detained us in front of La Moneda because it was on the July 5th, which is the International Day of the Environment, and we were with 30 Greenpeace activists and one of the volunteers was wearing a mask and a presidential band representing President Frei and another Greenpeace volunteer's task was to be the company's representative. So we had a chainsaw that we had rented at the Home Store. So the President took the chainsaw from this guy...and it was like a completely calm street theatre sketch, we were all seated on the ground. There were no more than 30 of us and it was pouring down rain and we were completely soaked and this was because the press had filmed everything and we were waiting for 15 more minutes so that they wouldn't say that we had only showed up so that they could take pictures of us, during which [time] around 200 police officers arrived, that is, there were like 4 police officers to each person and it was so violent because in 5 minutes they hauled us up from the ground and they loaded us into the van. Of course it was an exaggerated response to a peaceful demonstration and it totally revealed the government's lack of sense of humour.
>
> We couldn't do them harm enough to [justify] them carrying us off and in addition to that we weren't doing anything illegal. We were occupying a public space and making known our position about an issue like the project -- that was on June 5th, 1998 and the other demonstration that was so funny was when they approved the Project in '98. I was in Magallanes and I went to the meeting when they approved the Project and I travelled that same evening and the following morning I was in front of CONAMA with Greenpeace volunteers and while we were there they [the volunteers] took their pants off and gave them to me and I entered the CONAMA building to give them to the Director of CONAMA

> as a present, which was a way of saying to him that he hadn't had "the balls" to defend CONAMA. Now, the difference is that we could do this in front of CONAMA and nobody assaulted us and all of CONAMA's employees were laughing their heads off over what was going on and the photos went around the world. And, well, we left peacefully in the same way we had arrived. But you can't do the same to the President, the President doesn't like to be ridiculed or he doesn't have a sense of humour.

Doug Tompkins and Parque Pumalin

Juxtaposed to the Río Cóndor Project is Parque Pumalin proposed by US entrepreneur and deep ecologist, Douglas Tompkins. Allegedly, Tompkins's relationship and fondness for the forests of what is now called, Parque Pumalin, developed during numerous visits in the areas for decades prior to his purchases. Pumalin is located in and around Quintupeu and Cahuelmo Fiords in Region 11. The over 300,000-hectare property extends from the Pacific Ocean to the border of Chile and Argentina, with property extending into Argentina. Preservation of the rainforest, and in particular the Alerce species, a tree species made scarce from excessive logging coupled with slow regeneration rates. The government has recognized this species as a non-renewable resource and declared the species a national monument – protection measures enforced by CONAF to prohibit cutting of the species whether dead or alive.

The purchase has raised a range of criticisms and concerns from groups such as a coalition of the military, Catholic Church, and forest industry challenging the project on the grounds of sovereignty and national security and national unity (property divides the country), racist claims that he was building a Jewish state, and interestingly, the concern that a large section of land was owned by a foreigner. The Río Cóndor Project (272,769 ha) was purchased by Trillium Corporation, Washington, US, without these claims made by government senators, the military or Church. What appears to be the difference is the alternative form of development Tompkins and his Deep Ecology philosophy shapes his land use practices. The project is based on conservative measures and eco-tourism – accruing economic value from a healthy standing forest rather than from sustainable logging in the Río Cóndor. Issues found in this dispute (how the land is perceived, how the land should be used, what "development" is, and shifting the value of the forest from a resource for extraction to consumption of aesthetic values and possibly small scale projects) reverberates North in Santiago where the government, industry organizations, and forest companies favor native forest projects that fulfil the economic model and status quo development.

> It was almost like physical violence, and this added to his addiction to the principles of deep ecology, then the feeling that he preferred the trees and animals over human beings created a very bad atmosphere, and because of this a series of false rumours began to form, that he was going to bring the Jews, that he was going to form a Jewish enclave, but the press got a hold of it and they painted him with as a dark character, and a bit deceptive [in the terms of a winding, tortured way about him].This has meant that...there is also a natural suspiciousness that is very Latino, it's very Hispanic towards anything unknown, and towards apparently altruistic gestures, but which are not really understood

> well [as to] whether they are truly altruistic or if there is something hidden there. There is a Spanish saying that is very graphic 'when the charity is really big...even the Saint is mistrusted'. This led to a rejection on the part of the people, but essentially it [the rejection] is not against the [basic] environmental idea of conversation, but rather what is behind this idea. On the other hand, the Trillium case is very clear, 'I am coming to cut down trees.' This is the difference between Tompkins's problem and Trillium's. Now, going back a little, this growth in environmental awareness is based on the international commitments Chile has assumed as a part of the free trade agreements. *Fernando Dougnac, President of Fiscalia del Medio Ambiente (FIMA)- Chile's Environmental Public Prosecutor Office and lawyer for Pro-defense of the Environment, Santiago, November 25, 2003*

Just as the ideas of deep ecology and altruism challenged ideas of development and Chile's relationship with the bio-physical world, my research is offering a perspective of the often taken for granted ideas surrounding the Río Cóndor forest project. However, while Tompkins's Parque Pumalin has many individuals, organizations and institutions in society raising concerns over sovereignty and the actual intentions of his project, in my opinion, the surrounding debate moves society towards discussing how forests (and the bio-physical domain in general) in Chile are talked about, used and conceptualized. This is the goal of my thesis, but within the context of a forest project, which has offered improved set of social and cultural practices for interacting with the bio-physical domain. However, the question is whether we are paying attention to this opportunity, and if so, whether the new social practices of, for example, sustainable development are in fact moving us towards meaningful change.

Appendix V: Interview Package

Purpose of Research:

[original]
The purpose of this research is to understand how civil society influenced the contending ideas over clear cut logging in the Tierra del Fuego, Chile and Argentina, from 1990 to the present and ultimately halting logging of some of the world's remaining temperate rainforest. This study will examine how each social group – new social movement e.g., environmental groups, Aboriginal peoples, government, forest companies, and media – framed their ideas surrounding the perception and how the forests should be used. I am interested in understanding the ideas (e.g., myths, perceptions of land, and what the land means to people) of how the forest dispute is talked about and perceived in the Tierra del Fuego. As a result, this research seeks to contribute to creating new ideas and strategies for sustainable use(s) of the Tierra del Fuego and other remaining temperate forests on this planet.

[edited with removal of "clearcut"]
The purpose of this research is to understand how civil society influenced the contending ideas over logging in the Tierra del Fuego, Chile and Argentina, from 1990 to the present and ultimately halting logging of some of the world's remaining temperate rainforest. This study will examine how each social group – new social movement e.g., environmental groups, Aboriginal peoples, government, forest companies, and media – framed their ideas surrounding the perception and how the forests should be used. I am interested in understanding the ideas (e.g., myths, perceptions of land, and what the land means to people) of how the forest dispute is talked about and perceived in the Tierra del Fuego. As a result, this research seeks to contribute to creating new ideas and strategies for sustainable use(s) of the Tierra del Fuego and other remaining temperate forests on this planet.

Form 2- Informed Consent SIMON FRASER UNIVERSITY (knowing permission of individuals to participate as an exercise of their choice, free from any element of fraud, deceit, duress, or similar unfair manipulation) **By Participants In a Research Project or Experiment**

The University and those conducting this project subscribe to the ethical conduct of research and to the protection at all times of the interests, comfort, and safety of subjects. This research is being conducted under permission of the Simon Fraser Research Ethics Board. The chief concern of the Board is for the health, safety and psychological well-being of research participants.

Should you wish to obtain information about your rights (guarantee of safeguards to ensure the subject is protected) as a participant in research, or about the responsibilities of researchers, or if you have any questions, concerns or complaints about the manner in which you were treated in this study, please contact the Director, Office of Research Ethics by email at hweinber@sfu.ca or phone at 604-268-6593.

Your signature on this form will signify that you have received a document which describes the procedures, possible risks, and benefits of this research project, that you have received an adequate opportunity to consider the information in the documents describing the project or experiment, and that you voluntarily agree to participate in the project or experiment.

Any information that is obtained during this study will be kept confidential (private and secure) to the full extent permitted by the law. Knowledge of your identity is not required. You will not be required to write your name on any other identifying information on research materials. Materials will be maintained in a secure location.

Title: A temperate rainforest within a contested space: how civil society influenced the contending discourses surrounding clear-cut logging in the Tierra del Fuego
Investigator Name: Wayne Crosby
Investigator Department: Soc/Anthrop.

Having been asked to participate in a research project or experiment, I certify that I have read the procedures specified in the information documents, describing the project or experiment. I understand the procedures to be used in this experiment and the personal risks to me in taking part in the project or experiment, as stated below:

Risks and Benefits:
This research involves a highly contested dispute over use of the forests in the Tierra del Fuego, which includes political, social, economic, and ecological issues. Participants in this research may be exposed to risks that could include political or economic repercussions on a personal or constituent (e.g., environmental organization) level. However, the objective of this study seeks not to request information that would place the subject or their constituent in an incriminating position. In addition, I ensure confidentiality (active attempt to ensure elements that might indicate the subject's identity is removed from the research records) throughout the project to minimize risks I can or cannot predict. Confidentiality will be achieved by ensuring that each participant clearly understands the objectives and methods used for this study and voluntarily agrees to participate by completing the Informed Consent (knowing permission of individuals to participate as an exercise of their choice, free from any element of fraud, deceit, duress, or similar unfair manipulation) Form or providing verbally transmitted consent. I will code the names of people within the thesis document and refrain from using information gathered during interviews that could reveal the identity of the subject. Names and data collected will be stored in a secure cabinet in my residence (North Vancouver, BC, Canada) under lock and key, in which I will be the only person with ownership and access. Data will be destroyed 5 years after the thesis is completed. In addition, participants will be given the option to withdraw from this research at anytime throughout the project.
Absolute anonymity (the subjects are unknown and they remain nameless) is difficult to assure in this research since I will know whom the subjects are when I am interviewing in person or via telephone (or email if necessary). Therefore, ensuring confidentiality of the subject's identity (and name) will contribute to achieving anonymity.
The benefit of this study is the contribution this research will make in exploring new ideas and strategies for sustainable use(s) of the remaining temperate rainforests on this planet. It seeks also to contribute to the body of literature in ecologically based social movements in Latin America.

I understand that I may withdraw my participation at any time. I also understand that I may register any complaint with the Director of the Office of Research Ethics or the researcher named above or with the Chair, Director or Dean of the Department, School or Faculty as shown below.

Department, School or Faculty: Soc/Anthrop.

Chair, Director or Dean: Dr. Michael Kenny (Acting)
888 University Way, Simon Fraser University, Burnaby, British Columbia, V5A 1S6, Canada

I may obtain copies of the results of this study, upon its completion by contacting:
Wayne Crosby (wcrosby@sfu.ca)

I have been informed that the research will be confidential.

I understand that my supervisor or employer may require me to obtain his or her permission prior to my participation in a study of this kind.

What The Subject is Required to Do:
The purpose of this research is to understand how civil society influenced the contending ideas over clear-cut logging in the Tierra del Fuego, Chile and Argentina, from 1990 to the present and ultimately halting logging of one of the world's remaining temperate rainforest. The participants in this project will be informants associated with the five social groups I am analyzing: new social movements (e.g., environmental groups), Aboriginal peoples, government, forest companies, and media. Subjects that participate in this research will be interviewed to gather data surrounding the ideas each social group use(d) to frame their perspective of the forest dispute. Therefore, upon agreeing to partake in this research, the subject is required to participate in a or a number of semi-structured interviews where I will ask questions to understand the ideas (e.g., myths, perceptions of land, and what the land means to people) of how the forest dispute is talked about and perceived in the Tierra del Fuego. Interviews will be conducted in Spanish and/or English depending on the language of the subject I am interviewing. The subject will have the option to choose which language they are comfortable in conversing. Subjects associated with a company or agency are also required to agree to participate on the understanding that this interview will be conducted as independent research that has not been approved by the company or agency (e.g., Ministry of X or X Corporation). Final decision of the informant's participation rests with the informant during the entire research project.

The subject and witness shall fill in this box. (Please Print Legibly)

Subject Last Name: Subject First Name:

Subject Contact Information:

Subject Signature: Witness:

Date (use format MM/DD/YYYY):

Form 4: Participant's Feedback

Completion of this form is OPTIONAL, and is not a requirement of participation in the project. However, if you have served as a subject in a project and would care to comment on the procedures involved, you may

complete the following form and send it to the Director, Office of Research Ethics, Strand Hall, 888 University Drive, Burnaby, B.C., V5A 1S6, Canada. All information received will be strictly anonymous, unless you wish your name to be made known to the experimenter, as shown below.

Name of Experiment: A temperate rainforest within a contested space: how civil society influenced the contending discourses surrounding clear-cut logging in the Tierra del Fuego

Investigator Name: Wayne Crosby

Investigator Department: Soc/Anthrop.

Did you sign an Informed Consent Form before participating in the project?
Yes / No
Were there significant deviations from the originally stated procedures? Yes / No
If Yes please describe the nature of the deviation, and the date, place and time.
Please make any comments you may have:

Appendix VI: Sample Questions

Please note: included are sample questions used throughout all interviews. Depending on the person I was interviewing determined the specificity of the questions I asked in relation to their role or perspectives of the forest dispute.

Sample Questions for interviews

Would you like to share some history about yourself?
Have you been to the Tierra del Fuego? If so, describe the land to me?
What does the land mean to you?
What is the Río Cóndor Project and why was it important in Tierra del Fuego and Chile?
Why did you get involved in this forest project or dispute?
Why was your role important?
Why is the project not in operation today in the Tierra del Fuego?
What key events or actions do you think were significant factors in halting this project?
What precedence does this forest dispute set for future forest disputes in Chile?
What lessons were learned from this forest dispute for civil society/companies/govt?
It appears that natural resources in Chile are subject to political medalling and managed by a narrow economical perspective. Should this change? If so, how so?
If this project was proposed for Region 9 or 10, would the project be in operation today? Why or why not?
Why was the concept of clearcutting used in North American-based information pertaining to the project?
What should be done with the land of the Río Cóndor Project? Why?
What do you think needs to change in Chilean society for a better relationship with the native forests?
How would you describe democracy in Chile since the military dictatorship?
How do you think forest companies and government will approach future forest project proposals in Chile?
What does the end of the Río Cóndor Project mean for the people of Tierra del Fuego and Magallanes region?

Appendix VII: Data Coding

Transcription Codes for Río Cóndor Project

The formula will consist of: codes + Actor + (link to Theme(s) if appropriate)

Themes: 1. Sustainable Development
2. Political Participation
3. Environmentalism

RECALL:

- Narrative analysis w/ interpretative reading of people's voices Holistic analysis
- Key to research is linking dispute/data with social sphere and that the ecological dimension(s) influences as well.
- Actors will not be organized geographically but as one group to show the interconnection of various levels of involvement – i.e., local, national, global flowing throughout.

CODES:

1. Setting/Context:
    i. History: **[C-H]**
    ii. Economy: **[C-E]**
    iii. Physical Geography/Biology: **[C-G]**
    iv. Politics: **[C-P]**
    v. Culture: **[C-C]**
    vi. Social: **[C-S]**
2. Strategy: **[S]**
3. Activity: **[A]**
4. Actors' Perspectives:
    i. Land/forests: **[AP-F]**
    ii. Dispute/conflict:**[AP-D]**
    iii. Other groups: **[AP-OG]**
    iv. Project: **[AP-P]**
5. Sites of Conflict: **[SC]**
6. Relations w/ other Actors/groups: **[RA]**
7. Relationship with social structures
    i. Economy: **[SS-E]**
    ii. Politics:
        a. Northern relations: **[SS-P-N]**
        b. Southern relations: **[SS-P-S]**

Actors
STATE: **[S]**
ENGO: **[E]**
MEDIA: **[M]**
INDUSTRY: **[I]**
MISC: [specify in text]

Appendix VIII: Stewardship Principles

Source: © Trillium Corporation. David Syre, Chairman and CEO of Trillium Corporation provided the principles during an interview on July 30, 2004 at the Trillium Corporation's head office in Bellingham, WA, USA.

STEWARDSHIP PRINCIPLES

Rio Condor Project

Forestal Trillium Ltda. has acquired a large land holding on the island of Tierra del Fuego in the southernmost part of Chile. To guide implementation of commercial forestry on that land, Trillium has adopted the following Stewardship Principles.

Stewardship Commitment

In recognition of the vastness, location and quality of the land and forests of the Rio Condor Project, Trillium acknowledges a special stewardship responsibility to the land and to the people whose lives are affected by the Project.

Environmental Quality

The Project will be operated so that, in the long-term, the aggregate environmental quality of the land, water and forests of the Project will meet or surpass baseline conditions. Short term compromises may be required in economic productivity, environmental protection or social welfare, but these compromises will be made only in the context of a realistic plan for the long term balance of all of these values.

Sustainability

The Project's forests will be responsibly managed for indefinitely sustainable hardwood production, using the best available scientific knowledge to assure the protection of both the ecosystem and the well being of those associated with the Project. To this end, the average annual rate of harvest during any ten year period will not exceed levels that support an indefinitely sustainable harvest.

Chilean Values

The social, economic and environmental values of the people of Chile will be integrated into all aspects of the Rio Condor Project through Chilean involvement. People whose lives are directly affected by the Project will be further informed and consulted about aspects of the Project affecting their economic and social well being.

Chilean Employment and Value-Added Activity

To foster economic development in Tierra del Fuego, Chileans will be employed on the Project to the extent feasible. After a mill is constructed, logs will be processed to the highest level of finished product that is economically feasible prior to export out of Region XII.

Chilean Reinvestment and Philanthropy

Trillium will reinvest a significant portion of the net profits of the Project in Chile, and will establish a program of contributions to support Chilean environmental, educational and social endeavors.

Master Plan

Economic productivity, environmental protection and social welfare are interdependent aspects of the Project that will be integrated into a Master Plan designed to accomplish each of these goals on a long term basis. Among other things, the Master Plan will:

- identify the overall environmental issues and the areas within the ecological system for enhancement, restoration and/or preservation of natural phenomena and habitat;
- define appropriate silviculture practices, including acceptable harvest methods;
- coordinate the design and operation of the Project with the laws and regulations of the governments of Chile and Region XII;
- provide for the development of baseline data and the establishment of systems to monitor economic, environmental and social effects;
- address the development of port facilities and other production infrastructure;
- plan for housing, social and health services, and job training programs for workers;

- facilitate the transfer to Chile of relevant technologies and the application of those technologies to achieve the most productive use of the land and forests;
- address multiple use issues, including recreational uses; and
- respect cultural differences and the special ties between the people of Tierra del Fuego and the land.

Scientific Measurement and Reporting

Baseline environmental data will be gathered and compiled to facilitate planning and to enable the short and long term impacts of the Project's operations to be measured. All environmentally sensitive decisions regarding the Project will be based on reliable scientific data. When reliable scientific information is not available, Trillium will take steps necessary to generate reliable data and will defer any decisions which may entail significant environmental degradation until such data is available. To ensure the ongoing, long term scientific assessment of Project impacts, Trillium will fund the periodic monitoring and reporting of economic, environmental and social results.

Project Ethic

Trillium's policies, hiring procedures and training programs will be designed to ensure that everyone involved at each level of the Project fully supports and follows the stewardship ethic expressed by these Principles.

Open Process

The Project will be conducted in an open manner. These Principles, the Master Plan, and the rationale for important decisions will be publicly disclosed, so that others can observe Trillium's adherence to these Principles and witness the economic, environmental and social viability of the Project.

Independent Steward

Although Trillium, as owner of the Project, has ultimate responsibility for the proper integration of its economic, environmental and social values, Trillium nevertheless will voluntarily retain a steward of the land, under arrangements ensuring independence, to promote and monitor compliance with these Stewardship Principles, to assist with the development of the Master Plan and to periodically report to the public on the state of the Project and its economic, environmental and social effects.

Dated this 11th day of October, 1993.

FORESTAL TRILLIUM LTDA.

_____

David R. Syre
Chairman and President