

THE BUSINESS IMPLICATIONS OF THE ENVIRONMENTAL CHAPTER OF THE
US-CHILE FREE TRADE AGREEMENT

By

MEGHAN EARLY REYNOLDS

A THESIS PRESENTED TO THE GRADUATE SCHOOL
OF THE UNIVERSITY OF FLORIDA IN PARTIAL FULFILLMENT
OF THE REQUIREMENTS FOR THE DEGREE OF
MASTER OF ARTS

UNIVERSITY OF FLORIDA

2006

Copyright 2006

by

MEGHAN EARLY REYNOLDS

Dedicated to: Everyone who believes these issues are not as far apart as they may appear.

ACKNOWLEDGMENTS

I would like to thank everyone who has helped, supported and challenged me throughout graduate school, especially during the thesis process. I would like to thank my thesis chair, Dr. Terry McCoy, who encouraged me to return to Chile and pursue this topic. He has been an instrumental part of my graduate school career and the path I have taken. My thesis committee members Professor Steve Powell and Dr. Cristian Cárdenas provided valuable insight and guidance. I would like to thank Dr. Cárdenas for being so excited about my thesis topic and willing to be part of my committee.

I thank the Foreign Commercial Officers in the American Embassy in Santiago, Chile, for allowing me to accompany them on a myriad of meetings and trade fairs. The exposure I received at the Embassy helped shape this thesis. I owe a special token of gratitude to Jackie Ward, also of the American Embassy in Santiago, Chile, who gave me the opportunity to experience trade negotiations.

My accomplishments would not have been possible without the love and encouragement of my friends and family. I especially want to thank my parents and my sister for always allowing me the freedom to explore and take risks. They have showed an immense amount of love and guidance throughout all of my endeavors and for that, I am eternally grateful. I would not be who I am today or where I am today without their love and support.

TABLE OF CONTENTS

	<u>page</u>
ACKNOWLEDGMENTS	iv
LIST OF FIGURES	vii
ABSTRACT	viii
CHAPTER	
1 INTRODUCTION	1
Problem Statement – Research Question.....	1
Literature Review	4
Approaches	12
Significance	13
2 HISTORY OF THE TRADE-ENVIRONMENT NEXUS.....	15
Introduction.....	15
Global Environmental Conferences.....	17
The Evolution of Environment Inclusion in GATT/WTO Negotiations.....	22
Trade and the Environment in Trade Agreements.....	32
Forces Behind Environmental Protection in Trade Agreements	36
Conclusion	39
3 ECONOMICS, TRADE AND THE ENVIRONMENT IN CHILE.....	40
The Chilean Economy and Economic Policies.....	41
Chilean Trade Policies.....	45
Chilean Environment and Policies.....	48
The Environment under Pinochet.....	49
Environmental Policy Since 1990	51
Conclusion	58
4 BUSINESS IMPLICATIONS	60
Introduction.....	60
The US-Chile Free Trade Agreement.....	61
The Environment Chapter	63

The Eight Cooperative Projects	67
Business Implications	72
5 CONCLUSION.....	78
Findings	80
Significance	81
Limitations and Future Research	83
 APPENDIX	
A FREE TRADE AGREEMENT BETWEEN THE GOVERNMENT OF THE UNITED STATES OF AMERICA AND THE GOVERNMENT OF THE REPUBLIC OF CHILE	85
B THE EVOLVING CONTEXT OF GLOBAL ENVIRONMENT GOVERNANCE....	95
LIST OF REFERENCES	97
BIOGRAPHICAL SKETCH	107

LIST OF FIGURES

<u>Figure</u>	<u>page</u>
1.1 The Environmental Kuznets Curve.....	10
2.1 The Committee on Trade and Environment's 10 Item Agenda.....	27
3.1 Chilean GDP and Carbon Emissions, 1991 – 2000	41
3.2: Chile's ranking according to the Environmental Performance Index.....	56
4.1: Environmental Cooperation, Chapter 19, Annex 19.3.1.....	69
5.1 Latin American Gross Domestic Product (GDP), 2005.....	82

Abstract of Thesis Presented to the Graduate School
of the University of Florida in Partial Fulfillment of the
Requirements for the Degree of Master of Arts

THE BUSINESS IMPLICATIONS OF ENVIRONMENTAL CLAUSES IN THE US-
CHILE FREE TRADE AGREEMENT

By

Meghan Early Reynolds

August, 2006

Chair: Terry L. McCoy

Major Department: Latin American Studies

A robust trading regime has proven to be a necessary ingredient for development. History has shown that many countries, especially in Latin America, have relied on their natural resources to increase economic growth. Chile is an example of a country that has had strong economic growth over the past 25 years due to its ability to capitalize on its natural resources and promote them in the international market. The impressive level of growth, however, is not without its drawbacks. Chilean forests, water, soil and air have all suffered due to the increased pressure on the environment to supply the world with copper, fruit, fish and paper pulp. The abuse that increased economic growth and trading has had on the environment has become a priority concern in recent years. This has sparked intense debate over which issue, trade or the environment, should take precedence and in what context the issues should be examined.

Including environmental chapters in free trade agreements has become increasingly popular over the past ten years. Research tends to frame the trade-environment nexus as

a win/loss situation in which one issue takes priority over the other. This debate is very relevant to businesses that stand to increase revenue due to the opening of new markets and comply with regulations. This thesis examines the business implications of including environment provisions in free trade agreements. Using the US-Chile Free Trade Agreement (FTA) as a case study, this thesis explores who benefits when countries include defined environmental clauses in their bilateral free trade agreements.

The historical roots of the trade-environment nexus are traced through decisions, mandates and treaties from the World Trade Organization and environmental conferences since 1970. The US-Chile FTA is used as a case study because it is unique in that it contains eight defined projects that the US and Chile must complete. The business implications are viewed as direct and indirect outcomes of the FTA.

The research finds that the Chilean case is a win-win situation for the governments, businesses and civil society of both countries. Chilean government, businesses and the environment benefit from the opening of trade because the country is more attractive for US companies precisely because the FTA incorporates environmental provisions. Chileans are savvy in that they recognize the benefits of being exposed to US companies and their environmental best practices. In addition, the entities mentioned above directly benefit by having to comply, of their own volition, with the eight cooperative environmental projects included in the environmental chapter of the FTA. The thesis finds that US and Chilean businesses directly benefit from the expansion of existing markets, the opening of new markets and a general climate of innovation stemming from adherence to new environmental regulations.

CHAPTER 1 INTRODUCTION

The trade-environment debate gained international prominence in the early 1990s in response to the increase in trade liberalization and regional and international economic integration. The issue concerns how trade regulations affect the environment and vice versa and what the implications are for businesses operating internationally. This thesis seeks to bring additional insight congruence to the debate by showing that the inclusion of environmental standards within trade agreements can contribute to and create business opportunities and increase cooperation between the signing parties. To accomplish this, the thesis will analyze the business implications of Chapter 19, the environmental chapter, in the US-Chile Free Trade Agreement (FTA). Exploring the trade-environment debate in the context of the agreement and its impact on the businesses of the signing countries suggests positive outcomes. The US-Chile FTA represents a model for trade-environment congruence because of its unique linkage between trade and the environment.

Problem Statement – Research Question

Trade and exports are extremely important to many countries' economy, bolstering investment and budget surpluses. The environment is also extremely important because many exports are natural resources or come from a country's source of natural resources, i.e., their forests, oceans, lakes, soil. Instead of maturing as congruent issues of the same development agenda, trade and the environment are viewed as conflicting issues. The issues have not achieved congruence because of the complex views and concerns

involved in the debate. Trade economists, as well as developing countries, view environmental protection as a non-tariff trade barrier or a form of protectionism. Environmentalists view trade liberalization as a major contributor to environmental degradation (Sampson et al., 2002, p.2). The developing world views environmental standards as a form of protectionism for the developed economies' markets (Sampson et al., 2002, p.2). Most discussions view the debate within a win/loss framework; one side must always lose. This thesis will examine the debate in a historical framework and through the lens of a free trade agreement between a developed country, the US, and a less developed country (LDC), Chile, to understand the business implications of the trade-environment debate.

The world is becoming smaller and more tightly knit as goods, services, capital and people move across boundaries more freely. Technology has contributed to the increasing rate of globalization. Trade has dramatically increased over the past fifty years. The huge increase in global trading in foreign exchange, from \$15 billion to \$1.5 trillion per day within fifteen years, 1973 to 1988, indicates the incredible surge in globalization and trade liberalization (Murphy, 2004, p.47). Since 1990, global trade has nearly doubled, reaching US\$6.3 trillion in 2002 (Wold et al., 2005, p.3). At the same time, the increased flow of trade across borders has had important environmental effects, such as increasing levels of pollution and natural resource depletion.

In 2005, the Millennium Ecosystem Assessment's report, *Living Beyond Our Means*, reported that human activity has altered the world's ecosystems more severely over the past 50 years than in any other time in human history (p.3). The report found that over half of the earth's ecosystems are

being degraded or used unsustainably . . . (g)lobal carbon dioxide emissions have quadrupled . . . (i)n 20 years, if current trends continue, three and a half billion people will live in countries facing “water stress” – having less than 1,000 litres of water per person a year . . . (and) (e)ach day 6,000 people, mostly children, die from diseases caused by lack of access to clean water or sanitation. (UNEP, 2005, p.1)

The increase of international trade and environmental degradation has produced a number of conflicts and debates within the international community. Within the last ten years the trade community, symbolized by the World Trade Organization (WTO), has come under increasing criticism from governments, non-governmental organizations and civil society groups over the conflict between trade and environmental policy. The conflict is complex because of the number of different views and actors within the debate. Concern for the environment, eradicating poverty, increasing trade liberalization and fostering a synthesis of international policies are all embedded within the debate and the different players view these issues from different perspectives. While all the stakeholders agree on the principle of protecting the environment, they have their own priorities and assumptions.

The problem that trade and environmental advocates are faced with is how to create a framework in which each issue is served. Many times the trade-environment debate is seen as a zero sum game in which one side must lose out to the demands of the other. Historically, the international community has given priority to trade concerns because of its economic impacts and benefits. The WTO and many leaders believe that increasing trade will lead to economic benefits and thus, they want to remove barriers. Countries sign free trade agreements to promote trade by securing free access to markets. However, it is widely recognized that the environment is a key aspect within the trading regime and therefore, attention must be given to how trade and the environment interact, especially

within trade agreements. This thesis addresses the question of the business implications and consequences of environmental clauses in free trade agreements using the US-Chile FTA.

Literature Review

The current body of literature that examines trade is varied as well as extensive. The same is true of the environment and environmental protection. The literature that examines the implications between trade and environmental protection is growing in recent years as trade negotiations and agreements have included environmental provisions and language. Wold, et al. (2005) contribute greatly to the overall trade-environment discussion by examining the conflicting views of the debate in thorough and balanced assessments of the issues. They examined the issues in the context of trade agreements and international institutions.

There are a number of questions that arise from the trade-environment literature. The two central questions are 1) what are the impacts of the international trading system on the environment and environmental regulations and 2) how do changes in environmental regulations affect the economic and trading capacities of the developing countries (Wold et al., 2005, p.3; Jha et al., 1999, p.2). Within those two broad questions are a number of issues that have emerged over the past thirty years:

- 1) How much authority or influence should the WTO have over environmental objectives and issues?
- 2) Should trade agreements include specific environmental clauses?
- 3) What are the business implications of combining trade and environmental regulations in agreements?

There is a large body of literature that discusses questions one and two. Many trade advocates do not believe that the environment should be included in trade

agreements because their primary function is to promote trade (Bhagwati, 2000, 1999, 1996). They argue that the WTO has two objectives: 1) remove barriers to trade and 2) promote an open and non-discriminating trading system (Sampson et al., 2002, p. 2). They point to the WTO's success over the past 60 years: tariffs have been cut from 45 to four percent and international trade has grown by two percent yearly over economic growth (Sampson et al., 2002, p. 3). Trade advocates believe that trade liberalization will increase the welfare of billions of people worldwide by providing them with higher incomes while environmental protection regulations will restrict trade and the ability of nations to achieve more trade liberalization and higher rates of growth (Wold et al., 2005, p.3-4).

Economists, such as Bhagwati (2000, 1999, 1996), argue that environmental policy, such as pollution control, should not be included in trade negotiations nor in the WTO. He believes that these issues are domestic in nature and thus, should be dealt with at the national level. However, he does not dismiss the importance of environmental protection. Instead he argues to separate the issues and create better governance to deal with the divergent policies:

free trade . . . is itself part of our overall moral agenda. And, the pursuit of these different moral agendas, including better environment and respect for human rights, must be pursued appropriately, without sacrificing any one of the . . . by designing the tools of appropriate governance. (2000, p.256)

Ricardo Ricupero (Sampson et al., 2002), the former Secretary-General of the UNCTAD, asserts that while the multilateral trading system must consider environmental concerns, he acknowledges that the WTO is limited in its ability to respond to environmental problems.¹

¹ UNCTAD stands for United Nations Conference on Trade and Development

Trade advocates push for the primacy of the WTO regime because it creates 1) a system of rules that all countries must abide by and 2) a legal context to protest embargos and/or restrictions on imports. Trade advocates argue that the WTO should not rule on environmental issues and that trade precedes the environment. Proponents believe that increasing trade will improve the lives of millions of people because more trade creates more wealth. Concerning the issue of the environment, trade proponents argue that trade is environmentally beneficial in two ways: 1) trade rules create efficiency which translates into less resource use and less waste and 2) trade creates wealth that can be used to buy better and “greener” technology (UNEP, 2005, p.4).

Many environmental advocates believe that the WTO’s rules, inclusive or exclusive of environmental standards, promote environmental destruction and resource depletion. They specifically point to the WTO’s rule of non-discrimination based on production means and methods as an example of trade supremacy, i.e. country X may produce a good cheaper than country Y by polluting the air yet, according to WTO rules, country Y cannot discriminate against country X’s good because of the way in which it produced the good. Further, proponents of the environment believe that multinational companies (MNCs) have more power than national governments and thus, can circumvent governmental environmental laws. Proponents believe that free trade allows MNCs to relocate to countries with weaker environmental regulations in order to avoid compliance costs.

A major issue of the trade-environment nexus literature focuses on how the developing world views the debate. Magda Shahin’s chapter in *Trade, Environment and the Millennium* (2002) outlines the major questions and concerns coming from the

developing world. The developing world, which comprises two thirds of WTO members, focuses on reducing poverty and narrowing the gap between rich and poor, which has grown significantly.² Proponents of this view recognize trade liberalization as a way to achieve their goals but believe that the developed world blocks this ability with subsidies and rules, such as environmental regulations, that protect their markets. This perspective believes it is unreasonable to demand adherence to the rich countries' environmental standards without financial help and recognition of differing national priorities.

Shahin shows how developing countries, who want to avoid all trade discrimination based on how a good is produced, are not allies of environmentalists who object to the WTO's nondiscrimination rule. They are worried that the WTO might change its rules based on the North's environmental concerns. They are in favor of the WTO's non-discrimination clause based on production means because it ensures that the Northern, richer countries cannot place embargos on their goods because they do not have the financial ability to update their process or production methods (Shahin, 2002, p.8). If the developing countries, because of a change in WTO policy, had to implement the developed world's standards, their product would not be competitive on the world market. In past trade negotiations and UN meetings, the North has agreed to financially assist the South in updating and "greening" their methods, but the North has yet to fulfill their obligations.

² Average global income equals US\$5,100 per person a year, but nearly 2.8 billion people (2 in 5) live on less than two dollars a day. The wealthiest one percent of the world earns as much as the poorest 57 percent (UNEP, 2005, p.1).

Other economists and trade experts argue for broader policy-making agendas in order to include the environment in trade negotiations (Runge, 1994; Rodrik, 1997).

Langhammer (2000) believes that the WTO should be “greened”. He asserts that the

trade policy review mechanism of the WTO should be extended to include a review of environmentally related trade measures in order to improve their transparency. (p.262)

Trade expert I.M. Destler (1999) believes that the WTO regime should include environmental protection measures, as well as other social issues, such as labor.

Similarly, Professor Andrew Guzman (2002) proposes that social issues become a WTO agenda item. He believes that a single entity is needed to negotiate the rules to govern trade and non-trade issues. He proposes that the WTO is the “best starting point” to discuss those issues because 1) it has proven to be a successful and capable organization and 2) has a well functioning dispute resolution system.

Another group of scholars calls for the creation of a new international body to handle environmental issues. The WTO Director-General Renato Ruggiero, as well as Yale Law Professor Daniel Esty, propose the creation of a body, for example, a Global Environment Organization, to act as the WTO equivalent but for international environmental disputes and rules (Shahin, 2002, p. 49-50).

The question of how much do trade and environmental protection affect each other is raised throughout the literature. Jha, et al.’s compilation of essays in *Reconciling Trade and the Environment*, (1999), use eleven case studies of developing countries to examine the relationship between liberalized trade and environmental protection. They found that while the answers varied among the countries, some common threads emerged. They found evidence that developing countries turn certain environmental protection measures into marketing advantages, such as the “ecofriendly” label. For

example, in China and India, exporters developed “green food” and “green cotton” labels, respectively, to aggressively market their products to developed world markets (p.23). However, many countries do see schemes such as ‘eco-labeling’ as developed world protectionist measures. The Colombian case study addresses this issue. Colombian exporters were surveyed on their perception of competition from foreign markets that used eco-labels. 85 percent of the exporters surveyed said that they did not see increased competition and 66 percent said that they “did not think that the implementation of eco-labels in international markets posed a threat to the competitiveness of their products” (p.24).

The literature on the economic costs associated with implementing environmental protection ranges from scholars such as Porter (1991, 1995) who believe that environmental standards will increase business competitiveness to scholars who find no empirical evidence through statistical; economic analysis. One body of literature focuses on the environmental “Kuznets Curve”, an inverted-U relationship that suggests that in the beginning stages of industrialization, environmental conditions tend to deteriorate because the country is focused on economic development. The trend will reverse once basic needs are met and nations reach middle-income levels, per capita GDP of \$5000 to \$8000 (Esty, 2001; Yandle, et al., 2002; Shafik and Bandyopadhyay, 1992; Grossman and Krueger, 1993). According to Yandle et al. and other scholars, countries will take more

interest in cleaning up their environment once GDP reaches a certain level. This is the turning point when the line begins to fall (see figure 1.1).

Scholars who have conducted empirical work to prove the Kuznets Curve have found that the turning point and the curve differs according to the

pollutant (Yandle, et al., 2002; Webber and Allen, 2004). Webber and Allen concluded that there is “no *single* relationship between income and environmental quality and the rate of environmental degradation” (p.18). Yandle et al. (2002) found that “(t)here is no single EKC relationship that fits all pollutants for all places and times” (n.p.). They also believe that accepting the Kuznets Curve translates into accepting “some environmental degradation” during the beginning stages of industrialization but once the country’s per capita income reaches a certain level, economic growth can be the driving force that helps undo the previous environmental damage. They conclude that:

If economic growth is good for the environment, policies that stimulate growth (trade liberalization, economic restructuring, and price reform) should be good for the environment. (n.p.)

Grossman and Krueger (1993), through their study of the environmental impacts of the NAFTA, found that once a country reaches a certain level, pressure will build to protect the environment via policy measures and consumer behavior (p.36).

Much of the literature that looks at empirical economic implications of the trade and environment relationship stops short of analyzing business implications beyond a

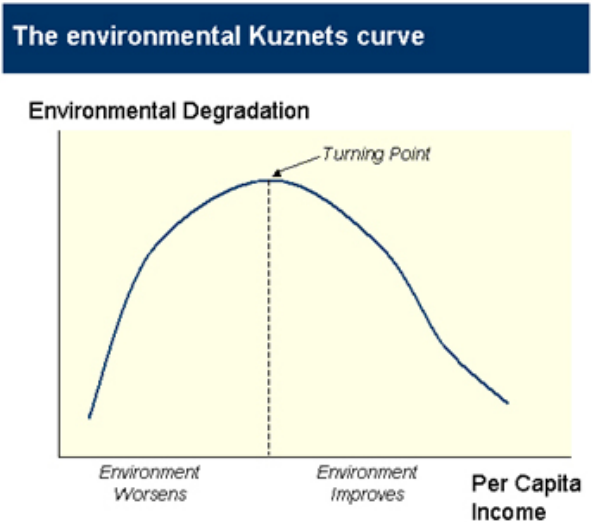


Figure 1.1 The Environmental Kuznets Curve

cost/benefit analysis. The research that analyzes market opportunities and competitiveness is limited. Michael Porter, a Harvard Business School professor, asserts that companies must be innovative in order to stay competitive in the global marketplace and that well-designed environmental standards lead to innovation which in turn will increase competitiveness (1995, 1998). He found that countries with high environmental standards “often lead in exports of affected products” (1991). In response to the Porter Hypothesis, economists have attempted to prove and/or disprove the hypothesis using empirical; statistical evidence. Xepapadeas (1999), after conducting an analysis of firms using old machines versus those uses newer and “greener” machinery, found that overall, “the trade-off between environmental conditions and profits of the home industry remains but is less sharp because of downsizing and modernization of the industry” (p.178).

There have been about 15 studies conducted that analysis the impacts of trade liberalization on sustainable development in Chile. Nicola Borregaard (2004), Advisor to the Chilean Minister of Economy and Energy, outlined the 15 studies in an attempt to examine the implications of trade liberalization on the sustainability via trade agreements. Her analysis found that the

relationship between environmental and/or sustainability effects and trade liberalization is highly complex. Especially given the lack of continuous data, pre-established models and the limitations of resources for carrying out the studies, the isolation and quantification of effects is hardly possible. (p.30)

The studies focused on how the agreements, an aspect of trade liberalization, improved sustainability or contributed to environmental degradation. They do not include business implications.

Approach

This thesis is a case study of the US-Chile Free Trade Agreement. The thesis uses the US-Chile FTA because it has gone the farthest in bringing congruence to the trade-environment debate. The agreement includes eight cooperative environmental projects that both Parties have agreed to complete. The thesis analyzes the text of the agreement as well as the implementation of the eight projects through a combination of primary source documents from the US State Department and the Environmental Protection Agency (EPA) and discussions with the trade negotiators and EPA officials in Santiago, Chile.

Primary resources from the United Nation, the World Trade Organization, the US State Department and the Chilean government, as well as the texts of the free trade agreements from the Foreign Trade Information System, aided in compiling the research. To understand the business implications, I consulted primary sources from trade negotiations and Chilean businessmen and lawyers. I gathered research during my internship in the American Embassy in Santiago, Chile from May–August, 2005. Chile and the US completed one of the FTA cooperative environmental projects in July 2005 and I attended those meetings between the EPA officials and the Ambassador's office. With representatives from the US Foreign Commercial Service, I attended *Aguayambiente*, a major environmental trade show in Santiago in May 2005 which exposed me to US and European companies selling environmental technology and products to industries needing to clean up their production methods. Interviews with EPA officials and US State Department trade negotiators in the American Embassy in Santiago, Chile supported the research on business implications.

Significance

An open trading regime is necessary for a country's economic development. A healthy environment is critical for the future well-being of a country's people, land and resources. The two issues are implicitly linked yet are discussed as contrary and conflicting concerns. The significance of this thesis is its' analysis of the business implications of including environmental regulations in trade agreements. The increasing amount of business opportunities arising within developing countries, such as China, India and Latin America, leads to more opportunities to create trade agreements with the developed world. It is common public and political opinion to include certain fundamental rights (labor rights, environmental) within these trade agreements. How the two issues interact to create mutually, benefiting programs is important to understand for domestic and international businesses currently operating in developing countries and those looking to do business in those countries.

Recently, trade agreements, multilateral and bilateral; have incorporated environmental standards in different capacities, through separate chapters or via inclusion in existing trade issues, such as investment. The link between trade and the environment is complex and multifaceted (Wold et al., 2005). This thesis will develop the major issues and identify the key players of the trade-environment debate. Chapter two will explore the history of the trade-environment debate and how each issue has impacted the other. The two issues have increased in prominence since the early 1970s but have developed as conflicting agendas within the General Agreements on Trade and Tariffs (GATT), the World Trade Organization (WTO) and environmental councils (Wold et al., 2005; Sampson et al., 2002). An understanding of how each issue is presented and viewed by the different parties involved is necessary to examine the business

implications. Chapter three focuses on the Chilean economy, trade agreements and environmental policies in order to establish a better understanding of the links between trade and the environment. The final chapter will discuss the environmental provisions of the US-Chile FTA and its business implications. This thesis concludes with the idea that trade agreements can accommodate environmental provisions that actually promote business. And, therefore, a forward looking, business-friendly country, such as Chile, may actually benefit from trade-environment congruence.

CHAPTER 2 HISTORY OF THE TRADE-ENVIRONMENT NEXUS

Introduction

Concern for environmental regulations and standards has only developed within the last thirty-five years. The environment is not mentioned in the United Nations Charter (1945), nor the original General Agreement on Tariffs and Trade (GATT) from 1947 nor the Treaty of Rome, which established the European Economic Community (1957) (Lowenfeld, 2002, p.298). It was not until the 1950s and Rachel Carson's *Silent Spring*, that environmental preservation became a worldwide concern.¹ After the publication of her book, the environment movement took off, but mostly within the domestic sphere, under the direction of non-governmental organizations and civil society groups. It took the international political community nearly twenty more years to put the environment on their agenda. The environment became an international concern in 1972 when the United Nations organized the Stockholm Conference on Human Environment. This conference represented the first time that governments focused their efforts on preserving the atmosphere, the oceans and on the idea that some issues require international cooperation and borders do not define national interests (Lowenfeld, 2002, p.298).

Since the Stockholm Conference, the international community has held a number of global environmental conferences to promote ecological preservation and sustainable development. The conferences have aimed to create regulations in accord with

¹ Carson's *Silent Spring*, published in 1953, and her other books, *Under the Sea Wind*, *The Sea Around Us*, and *The Edge of The Sea* helped start the environmental movement by exposing the inter-connectedness of nature and all living things and that human intervention affects nature.

development issues. They have both been successful and disappointing as many of the agreed upon principles are not enforceable under a dispute resolution panel, as environmental standards are under many bi/multilateral trade agreements and within the World Trade Organization.

Environmental preservation did not become a major agenda in GATT and WTO trade negotiations until the 1980s, even though the environment was mentioned in early trade rounds. Within the trade faction, environmental consideration is a new trend and very complex because of the diversity of views and the number of stakeholders involved in the debate. Many LDCs view environmental regulations as protectionism and a barrier to trade. The connection between the two issues is complex because the debate has been viewed, for the most part, negatively, i.e. environmental regulations are a burden on trade instead of a value-added factor. Further, implications between domestic, regional and international trade and environmental agreements lead to increased complexity. The debate between the two issues has been played out on a global view within the trade community as well as the environmental advocacy community. This chapter will explore how the two issues became linked and how they are portrayed on the international stage. First, the chapter will look at the global environmental conferences since the 1970s. Next, the chapter will discuss how the trade community has included the environment in its international trade rounds and most importantly, the WTO, formally the General Agreement on Tariffs and Trade (GATT).² Finally, the chapter will explore

² The trade community holds “trade rounds” in which the member countries decide on trade rules. The WTO is an inter-governmental organization with membership that rules over trade disputes but holds no authoritative power to ensure compliance.

the forces behind the debate, how the two issues became linked and the implications of their relationship.

Global Environmental Conferences

The first conference dedicated to the environment was the Stockholm Conference on the Human Environment in 1972. The conference put the environment on the international agenda for the first time. The international community called for the conference as a way to discuss and solve environmental concerns in a social, economic and policy framework. The conference aimed to create government sponsored directives to reduce atmospheric and oceanic destruction. The conference, attended by 114 countries, brought to the forefront the idea of a “global common”, i.e. that a nation’s interest does not end simply at its borders (Lowenfeld, 2002, p.298). The Stockholm Declaration, a series of principles, agreed upon by the attending member countries, loosely defined the environment as any matter that affects the human condition. While many of the principles have been forgotten, those dealing with science and nature have become the basis for converting environmental concern into law (Lowenfeld, 2002, p.301).

The Declaration stressed that protecting and improving the “human environment is a major issue which affects the well-being of peoples and economic development throughout the world” (UNEP, 1972). The Conference highlighted the principle of protecting human, animal or plant life or health, which is now a recognized international principle. Another key principle that emerged at the Stockholm Conference was Principle 21, which limits direct harmful effects on neighboring countries:

States have, in accordance with the Charter of the United Nations and the principles of international law, the sovereign right to exploit their own resources pursuant to their own environmental policies, and the responsibility to ensure that activities

within their jurisdiction or control do not cause damage to the environment of other states or of areas beyond the limits of national jurisdiction. (UNEP, 1972)

This principle, from the Stockholm Declaration, is controversial because it begs the question of where does one nation's jurisdiction end and another's begin and at what level do toxic substances become harmful to the environment? Despite the conference's inability to resolve many of the issues and controversies surrounding environment protection, the conference recognized the need for an international organization dedicated to promoting the environment and its protection. The conference recommended the creation of the United Nations Environment Programme (UNEP) but since many nations feared infringement on their sovereignty, they gave the UNEP a small budget and a vague mission.

By the early 1990s, environmental protection had become a major concern in the media, politics and economics. The term "sustainable development," coined in the 1987 World Commission on Environment and Development report called *Our Common Future*, known as the Brundtland Report, became a buzz word within environmental policy circles. The report came into existence at the UN's request for the report to respond to the 1983 General Assembly's resolution to prepare an "Environmental Perspective to the Year 2000 and Beyond." The Brundtland Report created an agenda for examining and solving the world's environmental and development problems. It defined sustainable development as: "development that meets the needs of the present without compromising the ability of future generations to meet their own needs" (Lowenfeld, 2002, p.304). The report recognized economic growth as a means to alleviate human poverty and environmental degradation. The report named poverty as a main cause of environmental pollution and that economic activity and international trade were

necessary to overcome the “pollution of poverty.” Sustainable development came to represent the goal of the next global environmental conferences.

In 1992, the United Nation’s (UN) call for a Conference on Environment and Development (UNCED) was realized in Rio de Janeiro. The “Earth Summit” drew over 7,000 delegates from 178 countries (Lowenfeld, 2002, p.304). Despite increased differences between the developed world and the developing countries, the delegates were able to sign the Convention on Climate Change, the Convention on Biological Diversity and Agenda 21 (UN, 1997a). The major agreement was Agenda 21, an 800 page document that addressed promoting sustainable development through international trade. The Preamble (1.1) states:

integration of environment and development concerns and greater attention to them will lead to the fulfilment of basic needs, improved living standards for all, better protected and managed ecosystems and a safer, more prosperous future. No nation can achieve this on its own; but together we can - in a global partnership for sustainable development. (UNDESA, 2004a)

Agenda 21 encouraged the creation of a fair and equitable trading system; one in which sustainable economic developed was a priority. It put the responsibility of protecting and promoting the environment and the development process on the international community:

The international community should aim at finding ways and means of achieving a better functioning and enhanced transparency of commodity markets, greater diversification of the commodity sector in developing economies within a macroeconomic framework that takes into consideration a country's economic structure, resource endowments and market opportunities, and better management of natural resources that takes into account the necessities of sustainable development. (UNDESA, 2004b)

It called for “a substantial flow of new and additional financial resources to developing countries” in order to reach the developmental and environmental goals of Agenda 21 (UNDESA, 2004a). The successful conclusion of the Summit called for the

international community to provide \$125 billion worth of grants and concessions to the developing world in order to implement the principles of Agenda 21 (Sampson et al., 2002, p.48). The developed world, unfortunately, did not fulfill the obligations set forth within the Rio Summit and the developing world did not receive the promised financing.

The main difference that emerged at the Earth Summit was the South's objection to conforming to the North's high environment standards. The South felt that adhering to the developed world's level of protection would hinder their economic development because they did not have the financing or the capital to bring their factories, products and goods to the developed world's standards. Thus, the Summit's agreements were compromises between the North and South; the developed countries committed themselves to help finance development and the developing countries agreed to environmental cooperation. The Rio Declaration updated the twenty year old Stockholm Declaration by adding the development discussion and sustainability. Principle 12 states:

States should cooperate to promote a supportive and open international economic system that would lead to economic growth and sustainable development in all countries, to better address the problems of environmental degradation. Unilateral actions to deal with environmental challenges outside the jurisdiction of the importing country should be avoided. Environmental measures addressing transboundary or global environmental problems should, as far as possible, be based on an international consensus. (UNEP, 1992)

The Rio Summit created the Commission on Sustainable Development (CSD) to monitor the realization of the Summit's agreements. The ministers agreed to follow-up with a progress report in five years at a special session of the United Nations General Assembly. The commission met in New York City in June, 1997 to discuss the progress by governments and organizations towards the principles agreed upon at the 1992 Rio Summit. In a press release issued by the UN Department of Public Health, the then President of the UN General Assembly, Ambassador Razali Ismail of Malaysia,

described the meeting as disappointing because of the lack of concrete action plans. Heads of State or Governments and environmental ministers met for a week to discuss progress but the only agreement reached was that the planet was in worse shape environmentally than five years prior. The major reason for the lack of concrete programs of action continued to be the North-South divide on financing sustainable development projects (UN, 1997b).

The term sustainable development took center stage once again at the World Summit on Sustainable Development in Johannesburg, South Africa in 2002. The major agreement reached at this conference was the Plan of Implementation, a document with targets and time tables, which the Earth Summit and its follow-up, Earth Summit+5 lacked. The Plan of Implementation created target dates for bringing clean water and sanitation to at least half the people lacking it by 2015 and to restore fisheries and preserve biodiversity by 2015 (UN, 2002a). Another key aspect of the Summit was the establishment of partnerships between governments, civil society groups and businesses. According to a press release issued by the conference, “More than 220 partnerships, representing \$235 million in resources, were identified during the Summit process to complement the government commitments” (UN, 2002a).

The global environment conferences over the past thirty years have worked to fairly include development, trade and the environment into agreements that will benefit all the parties involved in the trade-environment debate. However, the conferences have fallen short on implementation and regulation. There are no dispute settlement panels for environmental concerns and infringements, thus, many infractions are not met with fines or punishment.

The Evolution of Environment Inclusion in GATT/WTO Negotiations

The way in which the WTO interprets and rules on trade-environment is narrow and mostly trade-focused. The WTO does not deny the significance of environmental protection but it stresses economic development as a priority since a country's ability to preserve the environment is in direct relationship to their level of development (Sampson et al., 2002, p.51). The international community established both the GATT, in 1947, and the WTO, established in 1994, in order to monitor the international trading system and create a system to oversee trade disputes. In 1994, the GATT became the WTO because the existing rules did not cover the trade issues that emerged in the 1980s and 1990s, such as trade in services, nor was the GATT's dispute settlement system equipped to deal with the new trading concerns. Including environmental concern in the newly established WTO came from out of more public awareness of environmental degradation and international pressure. The process of including the environment in trade negotiations took nearly twenty, despite international recognition.

The environment first became a discussion topic within the GATT because of the UN Stockholm Conference, which according to the World Trade Organization website, aimed to discuss "the impact of economic growth on social development and the environment" (WTO, n.dF). Prior to the actual conference, the Secretariat of the GATT created a document entitled, "Industrial Pollution Control and International Trade" that looked at the issue of pollution from the trade point of view and reflected what came to be known as "green protectionism", the idea that environmental policies would be obstacles to trade. After presenting the study to GATT members, the GATT Council of Representatives created the Environmental Measures and International Trade group ("EMIT group") to examine the impact of environmental policies on international trade.

However, the group did not meet for twenty years because the members agreed to only meet when a GATT member requested. Their first meeting was held in 1991, before the 1992 United Nations Conference on Environment and Development (UNCED) at the request of European countries (WTO, n.dF). The countries requested the group's activation in order to establish a trade-related environmental issues forum. The developing countries were initially reluctant to include environmental issues in the GATT but eventually agreed to the forum. The group's discussion focused on how environmental protection regulations affected GATT rules.

Between the early 1970s and early 1994, trade ministers began to give more attention to the environment in trade negotiations. The Tokyo Round of the GATT (1973-1979) addressed the contentious issue of how much influence environmental regulations exerted over trade. This round of discussions produced the Technical Barriers to Trade (TBT) which mandates "non-discrimination in the preparation, adoption and application of technical regulations and standards, and for their transparency" (WTO, n.dF). The TBT agreement holds important significance within the trade-environmental debate because while it allows for countries to implement the standards they believe are necessary, in order to protect the environment, the agreement encourages countries to adopt international standards, which could be lower than the domestic standard and/or require more financial investment. The agreement placed more significance on the right and ability to trade fairly than on maintaining environmental regulation policies. The Uruguay Round (1986-1994) dealt extensively with environmental issues, even including mention of the environment in the Preamble. The Doha Round, 2002, agreed to work towards allowing environmental organizations "observership" status in WTO meetings,

reducing trade barriers on environmental goods and new negotiations to discuss the “relationship between existing WTO rules and specific trade obligations set out in multilateral environmental agreements” (WTO, n.dA).³

In 1991, Mexico brought a major case before the GATT that brought the struggle and the complexities between trade advocates and environmentalists as well as those between the developed and developing countries to media and political prominence. The Tuna/Dolphin case brought the trade-environmental debate to the forefront of international trade discussions and, to many scholars, showed the GATT’s pro-trade bias. In 1991, the US placed a trade embargo on Mexican imported tuna because the nets were trapping and killing dolphins. Mexico brought the case before the GATT and won but the decision was never adopted so it is not a legal; binding interpretation of GATT law. The GATT’s panel ruled against the embargo citing that it was unjustifiable under Article XX, the General Exceptions clause. The US could not impose an embargo because Mexican regulations on tuna production did not meet US standards.⁴ Further, the panel ruled that the US could not apply extra-territoriality nor could the US use Article XX to force its own domestic regulations in another country (WTO, n.dC).

GATT Article XX is the general exception rule that permits countries to adopt “measures that would otherwise be inconsistent with their obligations” (Kamal; 2003, p.267). Article XX is highly used and debated within the trade-environment debate.

Article XX states that “...nothing in this Agreement shall be construed to prevent the

³ Environmental goods and services include: catalytic converters, air filters and consultancy services on wastewater management (WTO, n.dA).

⁴ This distinction became known as the product vs. process issue within the WTO. A country can place an embargo based on the quality and/or content of imported goods but not because of the manner in which the product was produced.

adoption or enforcement by any contracting party of measures: (b) necessary to protect human, animal or plant life or health;...(g) relating to the conservation of exhaustible natural resources if such measures are made effective in conjunction with restrictions on domestic production or consumption;" (WTO, n.dD). In the Tuna/Dolphin case, the GATT Panel concluded that Article XX should be interpreted narrowly and that the "burden of proof" is on the party referencing it. The Panel further ruled that Article XX could only be used in protect the environment "within the jurisdiction of the party invoking them" (Saito, 2001, n.p). Therefore, the US's embargo, which cited the desire to protect the dolphins in the Mexican fishing waters, was unjustified under GATT Article XX. The GATT's interpretation of Article XX remained narrowly construed until the adoption of the WTO in 1995. The WTO's preamble specifically mentions the environment and the importance of protecting it while promoting trade:

expanding the production of and trade in goods and services, while allowing for the optimal use of the world's resources in accordance with the objective of sustainable development, seeking both to protect and preserve the environment and to enhance the means for doing so in a manner consistent with their respective needs and concerns at different levels of economic development. (WTO, 1994)

The permanent dispute settlement panel of the WTO, the Appellate Body, has loosened the interpretation of Article XX and tried to rule in a more balanced approach to trade-environment cases.

The Tuna/Dolphin case and the ruling highlight the complexity of the trade-environment debate. First, while Article XX appears to be an environmentally friendly clause, the GATT dispute panel interpreted the article from a trade biased point of view, bringing it under heavy criticism from the environmental community. Second, it shows the complexity between the perspectives; the developed world brought the case for trade and environmental reasons. Further, the case underscores the discrepancy between the

wealthy, northern countries who can afford sophisticated machinery and technology and the southern, financially strapped, developing countries. The Tuna/Dolphin case was significant also because it occurred during the North American Free Trade Agreement (NAFTA) and the Uruguay Round negotiations. Neither Mexico nor the US wanted to hinder trade negotiations, thus, they decided to settle the embargo out of the WTO (CSIS, n.dB). Their decision further stresses the primacy of trade over the environment within governmental trade negotiations.

Despite continued reluctance by the developing world to include the environment question in trade negotiations, the international community signed the Marrakesh Agreement in 1994, to conclude the Uruguay Round of trade negotiations and launch the WTO. The very first paragraph of the Marrakesh Agreement states that sustainable development is a key part of the international trading system and that WTO members have a responsibility to uphold environmental protection.⁵ Members also signed the Decision on Trade and Environment which calls for member states to conduct their trade and economic activity in harmony with the objective of sustainable development. The document states that:

there should not be, nor need be, any policy contradiction between upholding and safeguarding an open, non-discriminatory and equitable multilateral trading system on the one hand, and acting for the protection of the environment, and the promotion of sustainable development on the other. (WTO, n.dE)

⁵ The first paragraph states: The Parties to this Agreement: “Recognizing that their relations in the field of trade and economic endeavour should be conducted with a view to raising standards of living, ensuring full employment and a large and steadily growing volume of real income and effective demand, and expanding the production of and trade in goods and services, while allowing for the optimal use of the world’s resources in accordance with the objective of sustainable development, seeking both to protect and preserve the environment and to enhance the means for doing so in a manner consistent with their respective needs and concerns at different levels of economic development” (WTO, 1994)

The agreement established the WTO's Committee on Trade and Environment (CTE) which works to manage the relationship between trade and the environment. The Committee is responsible for the coordination, communication and information flow between trade and environment experts at the national and international level (Sampson et al., 2002, p.355). Figure 2.1 below outlines the CTEs agenda. According to the WTO website, the committee, in its report to the 1996 Singapore Ministerial; addressed all of the issues on the agenda.

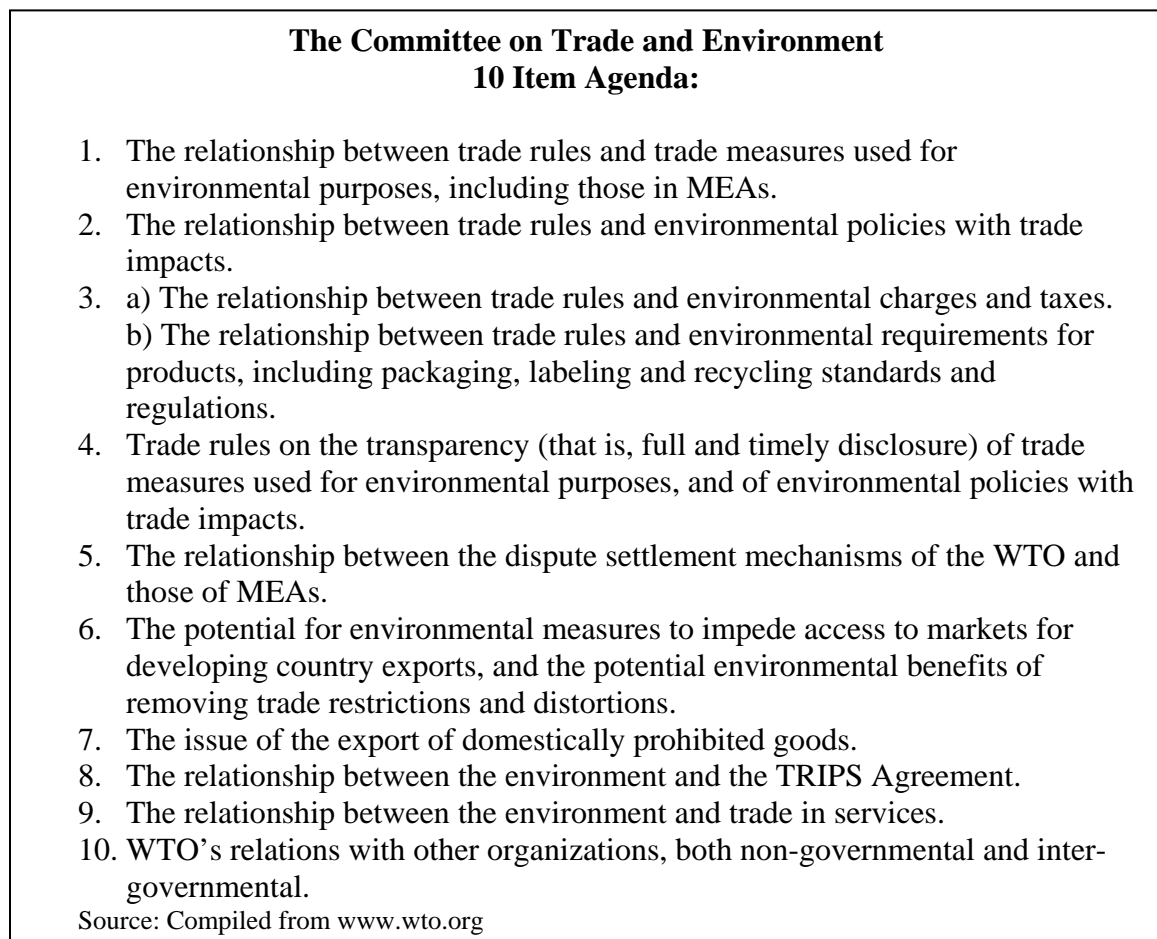


Figure 2.1 The Committee on Trade and Environment's 10 Item Agenda

Since the Marrakesh Agreement, WTO members have reaffirmed their commitment to protecting the environment. The 2001 Doha Ministerial called for the WTO to tackle

environmental questions via two separate groups: the CTE Special Session (CTESS) to handle the negotiations mandated in paragraph 31 of the Doha Ministerial Declaration and the Regular Session (CTE) to deal with the non-negotiating concerns from the Doha Ministerial; paragraphs 32, 33 and 51. (WTO, n.dH). The conference authorized the CTE to initiate trade-environment discussion on several subjects: the interaction between WTO Rules and Multilateral Environmental Agreements (MEAs) the creation of channels for information exchange between the WTO and the ministers of MEAs and the reduction/removal of tariff and non-tariff barriers to environmental services and goods (Bernasconi-Osterwalder, 2005; WTO, 2001). The Doha Ministerial reaffirmed the member's commitment to uphold the objectives of sustainable development outlined in the Marrakesh Agreement: "We are convinced that the aims of upholding and safeguarding an open and non-discriminatory multilateral trading system, and acting for the protection of the environment and the promotion of sustainable development can and must be mutually supportive" (WTO, 2001). The Declaration recognizes each country's voluntary right to conduct national environmental evaluations as they deem appropriate. Each country has the right to create measures:

for the protection of human, animal or plant life or health, or of the environment at the levels it considers appropriate, subject to the requirement that they are not applied in a manner which would constitute a means of arbitrary or unjustifiable discrimination between countries where the same conditions prevail, or a disguised restriction on international trade, and are otherwise in accordance with the provisions of the WTO Agreements. (WTO, 2001)

The Doha round included discussions of how trade impacts the environment and dealt with environmental-specific issues. Nathalie Bernasconi-Osterwalder, from the Center for International Environmental Law, wrote that it "was a big step given the

WTO's general reluctance to discuss the trade and environment linkage from an angle other than how environmental regulation may affect trade" (2005, p.1).

In terms of the WTO's ability to tackle trade–environment concerns, its mandate has limited reach. There are three committees that deal with the majority of the trade–environment issues: Committee on Sanitary and Phytosanitary Measures (the SPS Agreement), the Committee on Technical Barriers to Trade (the TBT Agreement) and the Committee on Trade and Environment (CTE) (Steinberg, 1997, p.239). The SPS Agreement permits WTO members to restrict trade based on scientific facts when human health is in question. The scientific facts must be based on “internationally established guidelines and risk assessment procedures” (Global Trade Negotiations, 2004, n.p.). In 1998, the WTO ruled that the EU's ban on US and Canadian imported beef treated with growth hormones, despite the fact that the EU's ban extended to domestic beef products, “violated the SPS agreement because the EU had not conducted the type of risk assessment required by Article 5 of the SPS agreement” (Silverglade, 2000, n.p.). The TBT Agreement mandates that the signing parties work to “ensure that technical regulations and product standards do not unnecessarily restrict international trade” (Global Trade Negotiations, 2004, n.p.). The agreement promotes countries signing agreements to accept common standards or the use of international standards.

The WTO's dispute settlement process hears and settles all trade–environment cases. Resolving the disputes usually calls for examining the “trade friendliness” of the issue, not whether or not the action is environmentally friendly (Steinberg, 1997, p.239). The new dispute settlement process within the WTO, as defined by the Uruguay Round, is based on a more structured time table. Disputes are usually settled within one year,

fifteen months if the losing party appeals the decision. The panels are composed of three (sometimes five) experts who hear the case and then send their report to the Dispute Settlement Body. The adoption of the panel's ruling can only be blocked with a consensus vote, including the losing party (WTO, n.dI).

Since the WTO's creation, its role in the trade-environment debate has been a highly contested issue. The WTO has set up the following guidelines in order to facilitate these discussions: it is not an agency dedicated to protecting the environment; its rules already provide "significant scope for environmental protection"; the WTO should increase market access for developing countries; and enhance coordination between trade and the environment at the national level as a means of eliminating policy conflicts at the international level (WTO, n.dG). Many environmentalists argue that the fundamental objectives of the WTO, to remove trade barriers that distort product prices and to uphold a non-discriminatory, open multilateral trading system, only increase unsustainability, resource depletion and environmental degradation (Sampson et al., 2002, p.2).

Several scholars argue that the trading system under the WTO contains more negative than positive provisions for developing countries. The rules cater to the developing countries and place burdensome obligations on the developing countries (Anderson, 2000, p.19). A central issue for the developing countries is the question of standards. Should all countries adhere to the same set of standards or should there be a sliding scale of adherence based on levels of development? Imposing a single standard would be incredibly costly for the developing countries as the high cost of adhering to the developed world's green standard would make their exports highly expensive on the

world market. Thus, the burden of adopting global green standards falls on the developing countries.

The developed world argues that lower standards in effect equal “eco-dumping” (Anderson, 2000, p.43). The WTO, which many argue unfairly favors the developed countries, links trade rules to the environment through three interrelated concepts: processes and production methods (PPMs), international environmental costs and eco-dumping (Anderson, 2000). Many consider the debate surrounding PPMs central to the trade-environment relationship. Process and production methods are the methods/techniques used to make products before they go to market. One product can go through a number of PPMs and the different processes have their own effects on the environment. WTO rules state that countries cannot discriminate between similar products, despite the PPMs and consequent environmental; human health impacts (UNEP, 2005).

While the rule is counter to upholding environmental standards, allowing PPM discrimination introduces problems in the trading system. Discrimination based on PPM could lead to a disguised form of protectionism as many countries, motivated by economics, could impose regulations on imports in order to protect their domestic industries. On the other side of PPMs role in the trading system, developing countries contend that many of their domestic priorities are dissimilar to the social and environmental concerns of the developed world. By forcing the developing world to adhere to PPM standards in order to avoid trade sanctions, the WTO is effectively mandating which social and environmental standards should be priority within the developing countries. Countries have different concerns and forcing a standard

adherence to PPMs could lead to a loss of export revenue and the inability to tackle country-specific issues, such as malnutrition, AIDS or education.

Trade and the Environment in Trade Agreements

Despite a twenty year gap in the GATT's focus on the trade and environmental link and the complexity of the debate, the international community recognizes the connection and the need to protect their natural resources. Most industrialized countries adopted laws and regulations to protect their air, water and species, but it was not until the 1980s that environmental concerns were incorporated into multilateral agreements. At the same time that the concern spread globally, the number and type of players in the discussion grew. Multinational corporations, NGOs, regional trading organizations and civil society groups gained more influence within the environment debate. As the concern spread, so did the environment's prominence in trade agreements.

Bilateral and multilateral trade agreements, while highly contested, are mechanisms for promoting globalization, a more liberalized trading system and more recently, environmental and labor standards. Advocates of trade liberalization believe that free trade agreements stimulate growth and add to the overall general well-being of the country's citizens. Critics of free trade agreements worry that the larger, more developed countries, who have a disproportionate negotiating advantage over less developed countries, will take advantage of this ability to extract beneficial deals for the developed nation and its multinational companies. Further, critics fear that free trade agreements negatively affect human rights issues such as favorable working conditions and contribute to environmental degradation.

After the 1972 Stockholm Conference, the international community negotiated and adopted a number of treaties dealing specifically with the environment. The Multilateral

Environment Agreements (MEAs) adopted since Stockholm have been regional; and international in nature. They address issues from endangered species to hazardous waste to chemical pollution. The most important treaties are: Convention on International Trade in Endangered Species of Wild Fauna and Flora (1973), the Vienna Convention for the Protection of the Ozone Layer (1985), the Montreal Protocol (1987) and the Basel Convention on the Control of Transboundary Movements of Hazardous Wastes and their Disposal (1989) (Lowenfeld, 2002, p.304). Since the Earth Summit in 1992, the international community has recognized that MEAs are tools to concentrate on international environmental problems, such as the depletion of the ozone layer.⁶ Agenda 21 from the Earth Summit addressed the need for multilateral action within environmental discussions:

avoid unilateral action to deal with environmental challenges outside the jurisdiction of the importing country. Environmental measures addressing transborder or global environmental problems should, as far as possible, be based on international consensus. (WTO, n.dB)

While many environmental protection regulations are adopted within multilateral agreements, many times the agreement comes into direct disagreement with the international trading system. According to the WTO, out of the nearly 200 MEAs that exist today, about twenty contain clauses that deal directly with trade, such as banning products or limiting trade (WTO, n.dB).

A major concern for environmentalists and the MEA signing parties is that the WTO has not recognized the legality of the MEAs. According to the Center for International Environmental Law, an important issue is the consistency and connection between trade rules, as defined by the WTO, and MEAs, such as the Kyoto Protocol on

⁶ See Appendix B for a table on the changing context of environmental governance in trade agreements.

climate change, the Biodiversity Convention and the Convention on International Trade in Endangered Species. The issue is not whether the MEA is legitimate but rather that the MEA measure or regulation is legal and binding on its own accord and that disputes arising over MEAs should be handled and resolved by the signing parties and not by the WTO.

The incorporation of environmental laws in trade agreements also changed with the NAFTA because it created an institution whose sole mission was to ensure “adherence to specified standards of environmental protection” (Steinberg, 1997, p.247). Previously, the GATT and WTO relied on the Committee on Trade and Environment to deal with trade-environment concerns. NAFTA’s environmental clause, the North American Agreement on Environmental Cooperation (NAAEC), created a Commission for Environmental Cooperation (CEC) which is made up of governmental representatives from the US, Canada and Mexico. The Committee’s responsibility is to oversee that the member states adhere to the NAAEC obligations and that the clauses are implemented.

The side agreement came into being because President Clinton, who favored integration between Canada, Mexico and the US as a means of promoting economic development, received pressure from Congress and environmental groups who saw the trade agreement as hazardous to the environment.⁷ The side agreement commits the three governments to uphold their domestic environment laws, promote sustainable development and provide private citizen access to the judiciary in cases of relating to environmental protection.⁸ While the NAAEC created a new forum for international

⁷ There is a separate side agreement on labor rights/issues.

⁸ The ten objectives are: a) foster the protection and improvement of the environment in the territories of the Parties for the well-being of present and future generations; (b) promote sustainable development based

environmental law to be heard, through the CEC, the agreement failed to mandate that the countries uphold the CEC's new obligations. Article 2 of the NAAEC states that "(e)ach Party shall consider implementing in its law any recommendation developed by the Council" (SICE, 1993). The Council can only recommend new law or recommend adherence, it cannot impose actions on the member countries. The CEC has been further criticized because the process of bringing a case in front of the Council is complex and arduous with minimal; effective results. While fines are involved, they are usually minimal. No cases since the NAAEC went into effect have been brought to the Council (CSIS, n.dA).

The dispute settlement process within the NAFTA is unique because it permits NGOs to indirectly instigate disputes by petitioning the CEC either under Article 13 or 14 (Steinberg, 1997, p.249). Once the NGO has petitioned the CEC to draw up a "factual record" of the environmental issue, it might have enough backing to force the convening of a dispute settlement panel (SICE, 1993, Article 13-15). The NAFTA's dispute settlement procedures and process, unlike the GATT/WTO, involves more groups whose focus is on trade-environment issues. Further, the dispute settlement panel uses data and reports from several sources: governments, NGOs and scientific/technical experts (Steinberg, 1997, p.249).

on cooperation and mutually supportive environmental and economic policies; (c) increase cooperation between the Parties to better conserve, protect, and enhance the environment, including wild flora and fauna; (d) support the environmental goals and objectives of the NAFTA; (e) avoid creating trade distortions or new trade barriers; (f) strengthen cooperation on the development and improvement of environmental laws, regulations, procedures, policies and practices; (g) enhance compliance with, and enforcement of, environmental laws and regulations; (h) promote transparency and public participation in the development of environmental laws, regulations and policies; (i) promote economically efficient and effective environmental measures; and (j) promote pollution prevention policies and practices. (SICE, 1993)

More recently, the Chilean FTA with the U.S is emblematic of the push to “green” trade agreements and make the environment a primary agenda issue within trade negotiations. Prior trade agreements, such as the NAAEC, only mandated that the signing parties adhere to their domestic environmental laws already in place. The Chilean FTA details eight action items that Chile and the US must work together to enforce. The details and significance of the eight items will be discussed in more detail in chapter four. Discussion of the trade agreement and its specific environmental clauses is necessary because it is the only one thus far that clearly outlines goals and deliverables.

Forces Behind Environmental Protection in Trade Agreements

The questions that arise from the trade-environment nexus are multilayered and complex. The international community has come to realize that trade and the environment are linked. As Daniel Esty wrote: “there is no real choice about whether to address the trade and environment linkage; this linkage is a matter of fact” (2001, n.p.). However, while many times the link is visual; i.e., we can see the layer of smog covering Santiago, Chile and Mexico City, Mexico, what is not apparent are the reasons for the intense debate. Who is promoting the inclusion of environment laws/regulations in trade agreements and negotiations and what are their underlying motives. Is the developed world’s concern for the environment truly altruistic or solely hegemonic? Are environmental; or “green” regulations simply protectionist measures to ensure the North’s power place in the world trading system?

According to Richard Steinberg in his article Trade and Environmental Negotiations (1997), the “richer, greener” countries “require enhanced trade-environment solutions as part of the package they bring home for domestic ratification”. He contends that as liberalization grows between countries and organizations, “powerful green states

both demand an increasingly environment-friendly web of trade-environment rules in the organization and use their power to get it” (p.235). The rich, powerful nations create the rules of the game; they control and drive trade negotiations. Thus, they set the trade-environment agenda, which translates to setting the green standards that the poorer, less developed countries must adopt. Rich countries use their bargaining power, as Steinberg comments “by threatening to close their markets to goods from those countries” (1997, p.232).

Developing countries are historically somewhat skeptical and weary of including of trade and environmental protection negotiations. Rubens Ricupero, the former Secretary-General of the United Nations Conference on Trade and Development (UNCTAD), believes that their reluctance towards embracing new trade negotiations falls within four categories: “the financial and economic crisis; problems with the functioning of the world trade system; the revival of protectionism; and a growing frustration with the gap between the promise and reality of trade liberalization” (Sampson et al., 2002, p.30). He believes that the developing world’s concerns about including trade and the environment in new negotiations stems from the same reasons but also the developed world’s lack of commitment to realize the commitments they made at the Rio Summit in June 1992.

The wealthy, developed countries agreed to financially and technologically support the developing world in the process of sustainable development. The developing world argues that the North became rich by taking advantage of the environment: depleting theirs and global resources, burning fossil fuels, stripping their forests and allowing factories to release pollutants into the air and water. Once these countries reached a high

level of output and wealth they turned their attention to preserving the environment. The developing world, thus, contends that if they are to be held accountable to high environmental standards, the developed world should supply the necessary financial and technical support to reach the goals (UNEP, 2005).

The US and the EU have been the biggest proponents of including environmental protection rules in the WTO. The US was the main force behind the creation of the GATT in 1946 and they were behind bringing the environment to the forefront of the Uruguay Round negotiations from 1986 to 1994 (Steinberg, 1997, p.240). The US and the EU have advocated environmental protection and integration among the member countries throughout the GATT/WTO's history. They succeeded in bringing the developing world, the Group of 77, into the GATT in the 1960s with the promise of market access. At the signing of the final agreements of the Uruguay Round in 1994, the developed world bullied the developing countries into signing all the agreements by threatening to remove the Most-Favored-Nation (MFN) status of developing world's products if they did not sign. As a reward for signing, the developed world promised new MFN treatment that included lower tariffs. Not signing the new agreement would have been detrimental to the developing world's economy because they would have lost their MFN status to two of the biggest economies of the time period, the US and the EU, who had removed their membership from the GATT 1947 agreement to join the newly created WTO (Steinberg, 1997).

Beyond government approval or disapproval; NGOs and other civil society groups represent significant blocks to the continuation of trade and/or environment and the integration of the two issues. On the environmental side, there will always be

environmentalists who oppose continued trade liberalization because they believe that there are limits to growth (Esty, 2001). On the other hand, there are many environmentalists who believe in the concept of sustainable development and will give their support to trade that considers environmental protection and concerns. Esty points to the fact that the environmental groups who came out in support of NAFTA helped influence politicians' votes. Further, there is no evidence that shows the environmental side agreement, the NAAEC, has detracted from Canada, Mexico, US trade. In fact, Canada and Mexico remain the US's top two exporting partners and number one and three, respectively, in the importing category. (Araya, 2002; Esty, 2001; CIA Factbook, 2005).⁹

Conclusion

Historically, the trade-environment debate has developed within separate spheres. This has led to separate agendas and priorities. We are beginning to see the two issues merging as the environment is increasingly on the trade agenda and included in trade negotiations. All sides of the debate recognize and understand that environmental standards are not simply rules to protect the air, water and manage natural resources but are more intricate rules that influence international trade and globalization. The forces behind the two issues, despite recognizing the advantages each issue offers, have different priorities, which increases the difficulty of finding global congruence. Thus, negotiating environmental standards within bilateral trade agreements, such as the NAFTA and the US-Chile FTA, provides a forum for incorporating the environmental and trade priorities of the signing parties.

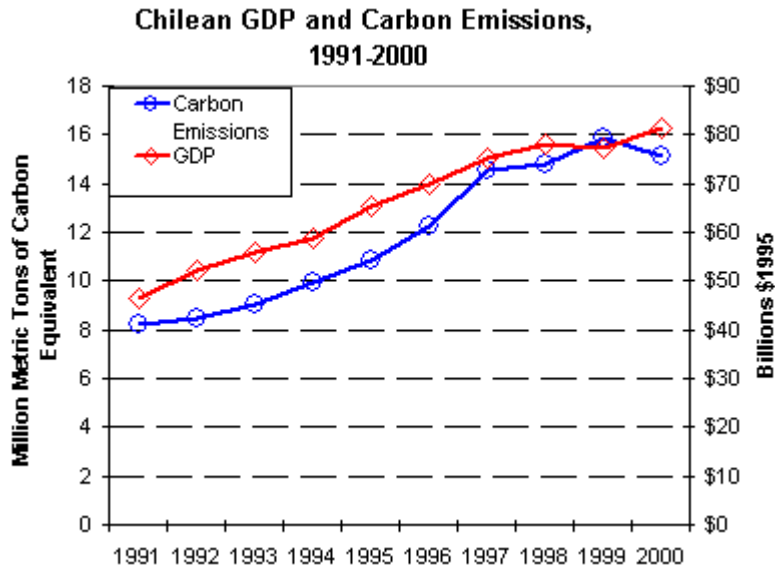
⁹ US's exporting partners: Canada 23%, Mexico 13.6%, Japan 6.7% (2004); importing partners: Canada 17%, China 13.8%, Mexico 10.3% (CIA Factbook, 2005)

CHAPTER 3 ECONOMICS, TRADE AND THE ENVIRONMENT IN CHILE

While the trade-environment debate raged on the international front, in Chile, the two issues grew at different paces, intersecting and diverging at different points over the past thirty years. Economic, trade and environmental policy in Chile changed dramatically since the late 1960s. While there was a lot of conflict between environmental protection and economic/trade policies, the issues converged in January 2004 with the signing of the US-Chile FTA.

Without Chile's copper resources and more recently forestry and aquaculture exports, Chilean GDP growth would not have been as impressive. However, the country's energy consumption and natural resource depletion would not have increased as rapidly either. The US Government Energy Information Administration (EIA, 2002) charted Chilean GDP and carbon dioxide emissions from 1991–2000 and found that they increased at the same rate (see figure 3.1).

The chart in figure 3.1 shows a possible connection between economic growth and environment degradation. According to the environmental Kuznets Curve, pollution should begin to fall once Chile has reached a certain per capita income level, which different scholars have estimated to be between \$5000 and \$8000. Per capita GDP in 2005, adjusted for purchasing power parity, according to the CIA World Fact Book was \$11,300. An analysis of Chile's economic growth and environmental policies is necessary to understand where Chile is on the Kuznets Curve.



Source: Energy Information Administration, 2002

Figure 3.1 Chilean GDP and Carbon Emissions, 1991 – 2000

The years of impressive economic growth caused considerable environmental damage to Chile's natural resources and air, water and land quality. Since the return to democracy in 1990, however, the government and non-governmental organizations have worked to limit pollution and preserve Chile's biodiversity through new laws and trade agreements. The following sections will examine the Chilean economic, trade and environmental policies. The chapter will explore how Chile's economic and trade policies have been helpful in making the environment a priority.

The Chilean Economy and Economic Policies

The US negotiated its first South American free trade agreement with Chile because it is one of the "most dynamic and promising markets in the region" (U.S. Commercial Service, 2006a). In terms of economic factors, the Chilean experience has been positive. While certain social indicators, such as unemployment and income disparity, continue to lag behind the more industrialized countries, Chile's economic

growth has come through a series of economic policies dating from the military dictatorship to its recent push to sign bilateral trade agreements with the US and Asia.

The economic policies Pinochet's military regime adopted laid the foundation for Chile's current overwhelming economic success. The neoliberal structural adjustment policies the Chicago Boys created were unique because the dictatorship adopted them completely and with incredible purity to economic theories. As history tells us, Pinochet commissioned the Chicago Boys to create an economic blueprint to bring growth back to Chile.¹ The economic plan they designed, known as "El Ladrillo" ("The Brick"), lifted Chile out of hyperinflation and negative growth (PBS, 2002). Chile, after the military coup, pursued a number of structural reforms including: privatization, trade liberalization, deregulating the financial markets and eliminating price controls. The free market economy outlined in El Ladrillo did not come naturally or easily. Chile experienced an unprecedented level of sustained economic growth only after recovering from two recessions and under the repressive rule of a military dictatorship.

After Pinochet seized control in 1973 in a coup d'état, his administration, with the guidance of the Chicago Boys, controlled every aspect of structural adjustment in Chile. The first policies implemented reversed the land reform and the nationalization efforts of the Frei and Allende governments. Pinochet lowered taxes on foreign companies, reduced tariffs, and cut government spending (Collins, 1994, p.27). Despite those changes, Chile's economy was lagging: unemployment was growing and the budget deficit remained high. In 1975, the Pinochet administration implemented economic

¹ Under the Socialist government of Allende, the Chilean economy collapsed: average real GDP shrank between 1971 and 1973 at an annual rate of 5.6 percent. Inflation was 508 percent between 1972-73. (Wikipedia, 2006)

“shock therapy”, designed to bring inflation down, by further cutting state spending, restricting the money supply and reducing import duties.² As a result of shock therapy, Chile retreated into recession-like conditions in 1975: unemployment hit 20 percent, GNP sank 13 percent, and purchasing power fell 40 percent from the 1970 level (Constable, 1991, p.173).

By 1979, the Chile economy was recovering from the shock therapy measures that Pinochet implemented in 1975. Growth rates averaged six percent, inflation fell to 50 percent and production increased, helping to reduce unemployment (Constable, 1991, p.188-89, 193). The recovery did not come without hardship, however. By the early 1980s, Chile faced a balance of payments deficit due to the import tariff reductions, massive privatization efforts, which increased private debt and a decrease in exports. By 1982 unemployment rates climbed higher than the previous recession rates and Chile found itself again in the middle of a recession, this time coupled with a debt crisis.

When the crisis hit, the military regime did nothing, believing that their prior market reforms would result in an “automatic adjustment” (Lustig, 1995, p.280). They were wrong and the failure to act left the country with an external debt totaling \$7.7 billion by 1983 (Constable, 1991, p.197). Chile had no other option but to accept the IMF’s conditions to repay the debt. Pinochet’s promptness with the payments succeeded in establishing a good relationship between Chile and the IMF and the World Bank. With a good relationship established, Chile capitalized. Pinochet pulled in more loans, such as bank credits of up to \$1.3 billion and used the IMF to promote economic growth (Petras,

² Milton Friedman, who visited Santiago in March 1975, recommended to University of Chile students that Chile adopt “shock treatment” and spending cuts. In a private meeting with Pinochet he recommended taking “sharp action against inflation” (Constable, 1991, p.170).

1992, p.29). The loans contributed to the growing privatization effort and led to a surge in the supply of new money from foreign private banks, the IMF, and the World Bank.

Part of the success of the Chilean economy in the late 1980s centered on the increase in exports, particularly fresh fruits, seafood, and forestry products (Collins, 1994, p.35) and reinstating higher tariffs, 25 percent in 1985, as a protective measure until exports recovered. The Chilean economy witnessed impressive GDP growth throughout the rest of the decade, into the 1990s and once again in the early 2000s as the market price for minerals, especially copper skyrocketed. Throughout the 1990s, Chilean GDP average six to eight percent. Over the past four years, the economy has picked up considerably; GDP increased from about two percent in 2002 to nearly six percent in 2006 (FITA, 2005).³ While many economists attribute this impressive growth rate to the economic policies of the “Chicago Boys” under Pinochet’s dictatorship, Chilean natural resources exports, copper, pulp and aquaculture, and their aggressive trade policy have contributed substantially. In 2003, exports were 29 percent of GDP (EIA, 2002).

Today, Chile has very low inflation, low foreign debt, and has a well developed infrastructure of paved roads, airports, ports and communication systems. According to the World Economic Forum’s 2004 Competitiveness report, Chile ranks 22 out of 104 countries in competitiveness and “continues to be the most competitive economy in Latin America, with a staggering 26 places between it and Mexico, the next highest ranked country in the region” (WEF, 2004). Chile’s stable fiscal environment has created a sound climate for investment and helped the country weather fluctuations in the market,

³ GDP was 2.2 percent in 2002, 3.3 percent in 2003, 5.2 percent in 2004, 5.9 percent in 2005 and 5.8 percent in 2006 (FITA, 2005).

such as the Asian Economic crisis of 1997, which caused recessions in many of its neighbor's economies.

Chile's economic rise to stability has been held as a model for current Third World developing countries, but the extent to which it is a true miracle is debatable. Chile's swift economic growth throughout the 1990s had negative impacts on society and the environment.⁴ Throughout the years of high growth rates, the income disparity between the richest 20 percent and the poorest 20 percent increased. According to the World Resources Institute, the richest 20 percent earn 61 percent of the total income while the poorest 20 percent earn about three percent of the total income (WRE, 2003).

Chile's adherence, despite high levels of unemployment and huge levels of poverty in the 1980s, to the neoliberal reforms laid the foundation for the country's sound macroeconomic framework. Another major factor in Chile's rise to economic stability and impressive growth rates is its aggressive policy towards trade and removing barriers to trade.

Chilean Trade Policies

One of the mechanisms Chile's authoritarian government employed to bring about high growth rates was a strong commitment to trade liberalization through adoption of a flat tariff rate. By 1979 Chile lowered its effective rate of protection from 100 percent (the rate in 1967) to ten percent (Fuentes and Gilchrist, 2005, p.1). According to the Economist Intelligent Unit, Chile has an incredibly transparent trade regime and one of the lowest tariffs in the region, averaging 6 percent as of 2003 (EIU Viewswire, March 2005). Chile's adherence to a single import-tariff is one of the reasons why it has

⁴ The question of the "Chilean miracle" is a contested subject and its impact on society, both positive and negative, are beyond the scope of this paper.

remained outside of regional trading blocks, such as MERCOSUR. The government favors bilateral agreements in order to maintain tariff consistency.

Over the past 25 years, Chile has focused its trade policy on removing trade barriers and integrating itself more into the world economy. According to the Chilean embassy in Washington, D.C, Chile's trade policy is based on four principles: 1) improving the quality of exports and adapting them to specific marketplaces; 2) removing discrimination between foreign and domestic suppliers; 3) maximizing efficiency; and 4) implementing procedures agreeable to the private and public sectors (Boardman, 2000).

Chile, through trade liberalization, reduced its dependency on copper exports and diversified into forestry, fishing, wines and agricultural products (World Bank, 2005). Pinochet's government promoted growth and investment through the deregulation of major industries and utilities. The government kept the copper industry as a state-run industry but pushed through a series of laws, which will be discussed in more detail in the environment section of this chapter that helped attract foreign investment. Ores and metals represent the largest share of Chilean exports, 42 percent in 2003, with food products second with 28 percent (FITA, 2005). Chile exports the majority of its goods to the US, Japan and China. Their largest importers are Argentina, the US and Brazil (FITA, 2005).

Chile's six percent rate of customs duties is the lowest in the region. Over the past ten years, Chile has negotiated and signed a series of free trade agreements with Canada, Mexico, the Central American countries, the US, Korea, the European Union (EU) and, most recently, China. Not all of the agreements have included separate chapters on the

environment. Most of agreements deal with the environment in terms of how it will affect investment and trade between the signing countries.

The Chile-Canada FTA includes a separate section dedicated to the environment (SICE, 1997). This section discusses and created an Environmental Council. The environment is mentioned in two additional places in the agreement: in Article A-04, Relation to Environmental and Conservation Agreements and Article G-14: Environmental Measures. Article A-04 says that if a discrepancy arises between the FTA and “specific trade obligation set out” in the Convention on International Trade in Endangered Species of Wild Fauna and Flora (1973), the Montreal Protocol on Substances that Deplete the Ozone Layer (1990) and the Basel Convention on the Control of Transboundary Movements of Hazardous Wastes and Their Disposal (1989), have priority over the trade agreement (SICE, 1996). The second article that mentions the environment is in relation to investment. The article reaffirms that it is “inappropriate to encourage investment by relaxing domestic health, safety or environmental measures” (SICE, 1996, Article G-14). Further, it states that:

Nothing in this Chapter shall be construed to prevent a Party from adopting, maintaining or enforcing any measure otherwise consistent with this Chapter that it considers appropriate to ensure that investment activity in its territory is undertaken in a manner sensitive to environmental concerns. (SICE, 1996, Article G-14)

The Free Trade Agreement with Central America mentions the environment in much the same manner, in relation to investment and the technical aspects to trade (Obstáculos Técnicos al Comercio). The Chile-Korea FTA also includes mention of the environment in the investment chapter. Article 10.18 of the agreement says that the “Parties recognize that it is inappropriate to encourage investment by relaxing domestic health, safety or environmental measures” (SICE, 2003). In 2005, Chile signed a

bilateral free trade agreement with its third largest trading partner, China. In addition to the trade agreement, the countries signed six additional agreements that dealt with “sanitary norms to promote trade while preventing the dissemination of diseases...healthcare, medical sciences and sports” (EIU Viewswire, March 2005).

The agreement with the US, which took effect January 2004, is the result of over two years of negotiations and links back to plans to incorporate Chile into the NAFTA. After negotiations fell apart to bring Chile into the NAFTA, the Chilean government began negotiating bilateral agreements, as explained above. The US-Chile FTA, which will be discussed in Chapter four, is the most comprehensive in agreement Chile has signed in terms of the environment and labor. The process of integrating meaningful environmental clauses into Chilean trade agreements did not happen over night. The following section discusses Chilean environmental policies from the Pinochet dictatorship to today.

Chilean Environment and Policies

Chile established its first environmental law, Law 3,133 – the regulation of liquid industrial residues – in 1916 (Embassy of Chile, 2005). In the early 1960s, the government created human health standards in relation to garbage disposal and water and air quality. Throughout the 1960s and 1970s, Chile’s environmental legislation dealt with industry and mining pollution. Pinochet’s government largely ignored environmental concerns, only addressing the issue when forced by international pressure (Silva, 1996, p.10). Instead, Pinochet focused on economic advancement, which came at the environment’s expense. Chile’s rapid growth over the past thirty years has put considerable pressure on its natural resources and environment. The sectors most affected by Chile’s policies of deregulation and export-led growth model were mining,

forestry and aquaculture (OECD, January 24, 2005). However, Chile would not have had the impressive growth rates had it not capitalized on its commodity goods and natural resources. Thus, as the OECD's Environment Performance Review (January 24, 2005) concludes, "(e)nvironmental conditions in Chile should be understood in the context of its rapid pace of development" (p.2). The current environmental concerns are results of years of putting profits ahead of environmental factors. Pinochet's dictatorship did not consider the environment in their policy; instead, his government created laws to attract foreign investors at the environment's expense.

The Environment under Pinochet

Chile's competitiveness in the world market is based on its natural resource exports. The economic blueprint of the Chicago Boys promoted neoliberal policies and to ensure these policies, Pinochet's government rewrote the legal system to favor openness and foreign investment. The change in the legal system heavily impacted Chile's environment. Decree 600, established in 1974, provides "fair treatment" to foreign investors. It allows foreigners to own up to 100% of a Chile-based company without investment time limits. This decree, which is still in effect, brought in more than US\$53.6 billion of foreign investment between 1990 and 2004 (HSBC, 2005). Despite the benefits of foreign investment, the decree significantly added to environmental degradation. Many local farmers have been forced to leave their land because large, private companies have obtained the rights to the water and/or land (Larrain, 1997, n.p.).

The military government promoted growth of the forestry industry through Decree Law 701 which provided subsidies, between 75 and 90 percent, to forestry companies and freed them from paying taxes. This law helped propel Chile into a world leader in pulp and lumber exports; exports grew from US\$130 million in 1974 to US\$2,040

million in 1995 (Larrain, 1997, n.p.). The decree largely benefited huge forestry companies who used the subsidy to replace Chile's native forests with pine and eucalyptus, non-native species. Along with the subsidies, the State privatized six of the largest State-owned forestry companies. Many environmentalists believe that laws such as Decree 701 are the reason that within nine years, 1985-1994, between 400,000 – 900,000 hectares of native forest was cut down (Larrain, 1997, n.p.).

Even though environmental protection was not a priority during the dictatorship, a large number of environmental NGOs were born during the military dictatorship. One of the most important environmental NGOs in Chile, the Comité de Defensa de la Fauna y Flora (CODEFF), began in 1963, and continued throughout the dictatorship because the military government did not consider the environment important. Thus, when the government purged many left-leaning groups, those members joined the environmental organizations which the military ignored (Silva, 1996, p.8). Silva points to the repression of the regime and the threat to Leftist leaning academics of “disappearing” as a reason that many organized into environmental groups. As a result, many of the groups cautiously linked their environment work with other social issues such as development and social justice” (1996, p.9).

Due to mounting worldwide attention to environmental issues and national interest, the government included the environment in the 1980 Constitution (Silva, 1996). Article 19.8 states: “(t)he Constitution ensures that everyone has: 1) the right to a life free of environmental contaminations (Republic of Chile, 2005).⁵ Throughout the next decade,

⁵ Author's translation from: La Constitución asegura a todas las personas: N° 1.- El derecho a la vida y a la integridad física y psíquica de la persona (Republic of Chile, 2005).

the Chilean government passed laws that regulated the environment. According to the Chilean Embassy in Washington, DC (2005), the regulation was “fragmented” which prompted the government to evaluate the existing environmental laws.

There was one environmental concern that Pinochet’s government responded to with vigor: ozone depletion. The government and civil society was particularly worried about how the ozone hole over Antarctica and the increase in ultraviolet radiation would affect fish, the forests and fruit crops, Chile’s main exports. Chilean ministers devoted substantial attention to the ozone layer convention in 1985, the CFC control convention of 1987 and to the success of the Montreal Protocol (Silva, 1996, p.10). The government’s reasons for pursuing international cooperation concerning the ozone did not come out altruistic concern for the environment but rather in order to improve its world image and to take advantage of the transfer of technology and resources to help solve the problem (Silva, 1996, p.10).

Environmental Policy Since 1990

Since Chile’s return to democratic leadership in 1990, the leftist administrations of the Concertación have placed more emphasis on protecting the environment. The Chilean government placed greater emphasis on protecting the environment in the 1990s after overwhelming evidence of the degradation of air quality in Santiago and in the north of the country, around the largest copper mine in the world, Chuquicamata.⁶ Chile’s environmental policies have largely been based off of concerns for human health and maintaining market access as its growth relies on commodity exports to the developed world. Chile has made improvements in its air, water and waste policies and looks to

⁶ Mining and the smelter process associated with it emit large amounts of sulfur dioxide, arsenic and suspended particulate matter into the air (EIA, 2002).

continue its progress by meeting the standards of the developed countries through trade agreements. According to the 2006 EPI report (Esty), Chile ranked 26 out of the 74 countries the study measured. In nearly all of the indicators, Chile ranked near the upper percentile, which signifies that Chile is protecting many aspects of its environment. The areas that the study found in which Chile needs to improve were wilderness protection (47.5 percent), overfishing (0 percent) and renewable energy (23.8 percent).⁷

Since the return to democracy in 1990, Chile has signed a number of free trade agreements and been involved in international efforts to increase environmental protection, domestically, regionally and internationally. Chile's commitment to high environmental standards is evident in its participation in international environmental agreements and in the government's insistence to include environment protection measures in bilateral FTAs. Internationally, Chile has signed agreements relating to ozone depletion and marine and maritime issues. Regionally, Chile has focused on preserving Antarctica and other ecosystems, such as the Altiplano-Puna ecosystem. Domestically, Chile focus is on adhering to a high level of environmental protection, enforcing their laws and not deviating from the laws in order to attract foreign investment (Embassy of Chile, 2005).

Chile's motivation to adhere to high environmental standards comes from a market oriented approach; the Chilean government views the "green" stamp of environmental products or environmentally friendly goods as value-added in the market place. Chile exports mainly to the OECD countries (Organization for Economic Co0operation and Development), which have high environmental standards. In order to

⁷ The percentage equals the standard proximity to the target, which 100 percent (EPI Study, p. 136).

maintain its status within the international trading system, Chile's exports must meet OECD standards (OECD, January 24, 2005). Chile's environmental concern does not all stem from an economic vantage point. Concern for human health is a principal factor and dates back to the early 1960s.

In 1990, Chile established the National Environment Commission – Comisión Nacional del Medio Ambiente (CONAMA). In 1994, after a review of current Chilean environmental standards, Chile passed the General Environmental Framework Law, which updated CONAMA (OECD, January 24, 2005; Embassy of Chile, 2005). CONAMA, which reports directly to the President of Chile, is a public body charged with managing and protecting the environment and Chile's natural resources. The 1994 law established new mechanisms of regulating environmental policy, such as, environmental impact assessments (EIAs), emissions standards, water and atmospheric pollution levels, and putting the responsibility on the polluter (OECD, January 24, 2005; Embassy of Chile, 2005).

Since the late 1990s, Chile has increased its efforts to clean up its land, water, air and promote sustainable development. Former President, Ricardo Lagos, started the Environmental Agenda 2002-2006 for Clean and Sustainable Development which sought to combine economic growth with sustainable and socially fair development. The agenda outlined four major focus areas: large cities (recovering water, toxic wastes, air and chemical standards); biodiversity preservation, including endangered species and plants (with a "goal to protect at least 10 percent of the most critical ecosystems by 2006"); environmental management modernization, including updating environmental indicators; and the "cultural and human environment" (focusing on education, "public-private

cooperation” and “citizen environmental initiatives”) (CONAMA, 2005; Embassy of Chile, 2005). CONAMA (2005) reported that it gave \$270 million to environmental protection projects in 2005 dedicated to this agenda.

In January 2006, the Chilean Embassy in Washington, D.C published “Environmental Science and Technology News” which reported on the latest news from the environmental sector. One of the Lagos’ agenda items, biodiversity protection, was recently realized in December 2005 when CONAMA passed three policies: “National Policy for Protected Areas,” “Policy for the Protection of Endangered Species,” and the “National Strategy for the Conservation and Proper Use of the Wetlands” (CONAMA, 2005). These policies meet the OECD standards.

In 2005, an OECD report evaluated Chile’s environmental performance and improvements over the past decade. The report praised the Chilean government for the “significant” achievements Chile has made concerning human health and environmental protection, including: reducing air emissions from the copper mines, improving the air quality in Santiago, water reforms and “innovative use of economic instruments, such as trading mechanisms for air emissions and water rights”. However, the report urged further protection and offered 52 recommendations. Some of the suggestions included: strengthening the environmental information systems, bolstering environmental integration in the mining, forestry and aquaculture sectors, developing more energy strategies, “reviewing the tax system to build in more environmentally-friendly incentives, following examples set in the OECD work on taxation and the environment” and meeting the standards and practices of the OECD countries (OECD, September 5, 2005).

In addition to its domestic laws concerning the environment, the report recognized Chile's commitment to international environmental laws, through trade agreements and multilateral environment agreements. Chile has signed a number of trade agreements that incorporate environmental regulations. The Chile-US FTA included an environmental chapter that outlined specific goals for each country. Beyond the scope of the actual FTA, the two countries signed the Environmental Cooperation Agreement (ECA) which created the Joint Commission for Environmental Cooperation and a work program for 2005-2006. The Commission has met once; its follow up meeting will be held in Washington, D.C in April 2006. The ECA and the Commission will be discussed at length in the next chapter (USDS, October 24, 2005).

Although Chilean environmental law is well-developed, many Chilean environmentalists think the twelve year old law that restructured CONAMA and introduced sweeping environmental reforms is still lacking. Sara Larraín, coordinator of Chile Sustentable, and Manuel Baquedano, president of the Instituto de Ecología Política are critical of the 1994 law and CONAMA because they do not believe that either adequately promotes sustainable development. They disapprove of CONAMA's placement under the Minister of the President because the "government appointees and ministerial representatives make decisions on investment projects using political criteria or short-term local objectives, without taking into consideration the broader scope of sustainable development" (González, n.d.).

Environmental issues prove difficult to implement because the agencies that are in charge of the environment are in different ministries. Therefore, many environmental laws echo the interests of the ministries as opposed to overall country or environmental

needs. Further, because of the number of agencies involved in creating environmental standards, there is often conflict and the inability to execute protection measures. Other issues include a lack of funding and insufficient training (Lagos, 1998)

Chile's major environmental concerns are energy consumption, water infrastructure and improving air quality and waste management (OECD, January 24, 2005). Chile's push to improve their environmental standards comes from a genuine concern for its citizens but also, an economic interest. Chile's economy is based on natural resource exportation to many OECD countries that require strict environmental standards. In order to maintain their place in the world export market, Chile's products must meet US and EU regulations.

According to 2006 Pilot Environmental Performance Index report, Chile ranks 26 overall in the world in environmental measures. The report measured and scored countries on a series of environmental issues.

Rank	Issues	EPI Score
39	Environmental Health	87.2
37	Air Quality	63.7
84	Water	83.7
25	Biodiversity & Habitat	68.3
99	Productive Natural Resources	63

Figure 3.2: Chile's ranking according to the Environmental Performance Index
Chile ranks fairly high overall and within the air quality, health and biodiversity and habitat areas but is still lacking in the water resources area and the preserving natural resources. The Chilean government is focused on improving standards, both for economic and social reasons.

Chile's concern for reducing emissions and improving air quality in metropolitan Santiago, as well as its commitment to international standards, is through their newest initiative: Transantiago, which went into effect in October 2005: In collaboration with the Global Environment Facility (GEF), the Chilean government has implemented the Project for Clean Air and Sustainable Transportation for Santiago, which encompasses the Transantiago plan (Gobierno de Chile, 2005). The World Bank is the financing and implementing agency, under the GEF, for the project. The GEF is a way to provide funding to countries who have agreed to improve the environment in four areas: climate change, biological diversity, international waters and ozone depletion (World Bank, 2004).

The project's objective is to reduce greenhouse gases (GHGs) emitted from urban transportation and improve Santiago's air quality (Transantiago, 2005). The project aims to realize their goals by shifting to "more efficient and less polluting forms of transport" (GEF, 2003). The project supports the Transantiago plan – the modernization of the Santiago public transportation system. Along with modernizing the bus system, the project will also promote the use of bicycles, improve traffic flows, improve environment assessments, land-use assessment to increase sidewalk space, travel harmonization and tools for improving and assisting in pollution control (GEF, 2003).

The Chilean government has been able to implement the Clean Air and Sustainable Transportation project because of a commitment to the environment but also, and more importantly because of its economic background and international image. Chile has adopted international and domestic standards and upheld their commitments to them. In one day, the old, yellow buses that symbolized Santiago transportation for years

were replaced with the Transantiago green and white. Chile's commitment to promote environment standards is exhibited in both its economic and social policies.

Conclusion

Although there are those that disagree with how Chile is protecting its environment and do not believe the government is taking enough steps to ensure the biodiversity, the forests and the water are safe from ruin, the governments since democracy was restored in 1990 have showed dedication and determination in upholding high environmental standards and promoting trade. It appears that Chile is on the downward slope of the environmental Kuznets Curve; after an intense period of industrialization, with high economic growth but also high levels of pollution, Chilean GDP has reached an income level that point to the curve beginning the downward slope. Further, as scholars have cited in prior research, the level of economic growth that Chile has and is experiencing places political pressure to address environmental concerns and change consumer behavior (Grossman and Krueger, 1993).

A combination of factors has contributed to Chile's ability to focus on the environment and push for its inclusion in trade related negotiations and agreements. The first factor is Chile's economic stability and high growth rate. Chile does not have to rely on the ability to produce cheaper goods because it learned from past mistakes. Chilean businesses need to become innovative in order to increase their competitiveness in the global economy.

A second factor is Chile's past experience with trade embargos. In 1989, the US placed an embargo on two million crates of Chilean grapes that were suspected of having been injected with cyanide (University of Pittsburgh, n.d.). Although the US embargo only lasted eleven days, the Chilean economy suffered immensely, nearly 20,000 workers

lost their jobs and according to the Chilean House of Deputies, the economic losses, estimated at nearly \$350 million, were “the largest economic crises experienced by our country” (“Resolution”, February 4, 1994). In a February, 1994 article in *El Mercurio*, when the dispute was finally coming to a close, in which Chile recuperated some \$330 million dollars from the US, the then Deputy Foreign Minister, Rodrigo Diaz Albonico, expressed Chile’s commitment to trade and innovation when he stated that Chile is "interested in being present in the United States with new and better products (“Resolution”, February 4, 1994).

Chile is a signing member of numerous international agreements and pushed for the inclusion of environmental projects in the US-Chile FTA. The FTA has served as a model of environmental inclusion in free trade agreements because it goes the farthest to incorporate the environment in a trade agreement. The FTA, which will be discussed in the next chapter, appears to be an example that Chile is moving down the Kuznet’s inverted-U shape.

CHAPTER 4 BUSINESS IMPLICATIONS

Introduction

The trade-environment nexus is often framed as a zero-sum game, with a clear winner and loser and a trade-off between growth and development and conservancy. While citizens, governments and organizations call for more environmental protection and higher standards, industry, and some governments, push back on implementing stricter standards because of the economic costs. Thus, the debate begins to look like an arm-wrestling match (Porter and van der Linde, 1995). The relationship, however, may not require a tradeoff between public good and private profits. Instead, as Porter and van der Linde (1995) describe, the “environment-competitiveness debate has been framed incorrectly” (p.97). Porter and van der Linde assert that competitiveness stems from innovation in how the good is produced, designed and marketed. Companies that want to be competitive internationally must continually improve their products to compete with their competitors and/or the new market they wish to enter. This theory has come to be known as the “Porter Hypothesis” in which environmental policies improve the environment and competitiveness within industries (Porter and van der Linde, 1995; Xepapadeas, 1998).

Porter (1995) argues that environmental laws and regulations can increase innovation and, in turn, increase profits. He calls this phenomenon “innovation offsets”, in which the innovation offsets the cost of implementing the environmental standard; “...firms can actually benefit from properly crafted environmental regulations that are

more stringent (or are imposed early) than those faced by their competitors in other countries” (p.98). Studies that have attempted to empirically test the “Porter Hypothesis” have concluded that the win-win situation that Porter asserts does not hold up, under economic statistical analysis, across all industries. Those that disagree with the “Porter Hypothesis”, however, still recognize that the “trade-off” between environmental standards and profits is less sharp and that the hypothesis might work under a narrower framework and within certain industries (Xepapadeas, 1998). This thesis argues that the Chilean case fits the “Porter Hypothesis”: the more stringent environment standards contribute to Chile’s innovation, competitiveness and increase the market value of Chilean products and goods.

The following chapter will discuss the environmental chapter of the US-Chile FTA, focusing on the innovative aspects of the agreement: the Council, the monetary fines and the eight cooperative projects outlined in the agreement. To date, Chile and the US have completed and publicized four of the eight projects. Following a discussion of the projects, the chapter will explore the business opportunities that have resulted from the environmental chapter of the FTA both directly and indirectly. The benefits that have grown out of the FTA support Porter’s idea that environmental policies will increase business opportunities. Understanding the business implications of the environmental clauses in the US-Chile FTA is important for future congruence of the trade-environment debate and in promoting growth and sustainable development.

The US-Chile Free Trade Agreement

On June 6, 2003, the US and Chile signed a comprehensive FTA that lowered (and will eventually eliminate) trade barriers, protect intellectual property rights, and promote labor rights and environmental protections (USTR, 2003b). The final agreement, which

took two years to negotiate, is the result of fourteen rounds involving 90 Chilean and 140 US representatives. Formal negotiations began December 6, 2000 between the US Trade Representative and the Chilean Foreign Minister. Previously, Chile had been considered as the fourth member of the NAFTA. In 1994 at the Miami Summit, the US invited Chile to become a member of the NAFTA. The negotiations stopped soon after, however, because of the inability of the US Congress and the Clinton administration to agree on fast-track authorization terms. When those negotiations ended, Chile pursued bilateral agreements with Canada, Mexico and most recently, with the US.

The US-Chile FTA is the most comprehensive agreement that Chile has signed and is historic because it is the first bilateral trade agreement between the US and a South American country (USTR, 2003b). The agreement immediately eliminated tariffs on 95.4 percent of Chilean exports to the US and 90.4 percent of US exports to Chile and subsequently removing trade barriers within four, ten and twelve years, depending on the product, until there is 100 percent tariff-free trade in 2015 (USTR, 2003b; EIU Viewswire, 2005). However, the agreement stipulates that both parties are expected to examine the possibility of accelerating the tariff-reduction schedule during 2005. Besides the tariffs accord, the FTA includes norms on competition policy, customs administration, direct investment, dispute settlement, e-commerce, environmental regulation, intellectual property, government procurement, labor law, rules of origin, sanitary and phyto-sanitary restrictions, services and technical barriers to trade. The inclusion of environmental regulations and standards is unique within the US-Chile FTA. The negotiators gave the environment priority, on par with investment and intellectual

property rights, by assigning it its own chapter. Further, the agreement is the first to include defined projects that both Parties must carry out and enforce.

The Environment Chapter

Chapter 19 of the US-Chile FTA's, the Environmental Chapter, contains generalized obligations as well as specific projects that both Parties must complete. The major components of the Environment Chapter of the FTA stress adherence to "several core obligations", effective enforcement and improvement of each country's environmental laws, and a commitment to not weaken laws in order to "attract trade or investment" (USTR, 2003c, p.9). John Audley, the director of the Project on Trade, Equity, and Development at the Carnegie Endowment for International Peace, testified, in front of the House Committee on Ways and Means, Subcommittee on Trade, that the "Chile FTA is an especially good example of two countries actively negotiating environment into the trade agreement" (2003a, n.p.).

The environmental chapter is historical and worth examining for several reasons: 1) it is a chapter within the agreement and not a side agreement; 2) it defined eight cooperative programs that the Parties must complete; 3) it created an innovated system for resolving trade disputes and 4) the Chilean government, i.e. the developing nation, insisted on a number of original aspects of the chapter, namely the creation of the Environmental Council (Article 19.3) and the eight defined projects (Annex 19.3).

The US-Chile FTA is unique in that it includes a separate chapter for the environment. Past agreements, such as the NAFTA and the Chile-Canada FTA, discuss the environment but place the discussion outside of the actual text in side agreements. By including the environment as a chapter of the agreement, Chile and the US are recognizing that the environment is as significant as issues such as intellectual property

rights, taxation and investment (personal communication with Jackie Ward, April 5, 2006). This is significant because it creates legally binding environmental provisions that both countries must enforce.

The environmental chapter of the FTA includes general obligations for each Party as well as specified projects. The generalized language includes text relating to levels of domestic protection (Article 19.1) and enforcing environmental law by not weakening or reducing environmental protection laws in order to attract trade or investment (Article 19.2) (USTR, June 2003a).¹ The unique aspect of this chapter's text is Annex 19.3, which includes eight cooperative projects that both Chile and the US must complete. The eight projects will be discussed in length in the next section.

The agreement stipulates that both countries must effectively enforce their domestic environmental laws, and violations are enforceable through the Agreement's dispute settlement procedure. The chapter, in Article 19.6 Environmental Consultations, sets out very specific steps for bringing issues to the dispute settlement panel. The chapter promotes cooperation in order to "arrive at a mutually satisfactory resolution". The text allows the Parties to "seek advice or assistance from any person or body they deem appropriate in order to fully examine the matter at issue". If the Parties are unable to resolve the issue, they may ask the Environmental Affairs Council to consider the issue. The Council "shall endeavor to resolve the matter", consulting with outside experts when necessary. However, the text is specific in that if the disputed issue

concerns whether a Party is conforming to its obligations under Article 19.2(1)(a), and the Parties have failed to resolve the matter within 60 days of a request for consultations under paragraph 1, the complaining Party may request consultations under Article 22.4 (Consultations) or a meeting of the Commission under Article

¹ The text of the FTA is included in Appendix A.

22.5 (Commission - Good Offices, Conciliation, and Mediation) and, as provided in Chapter Twenty-Two (Dispute Settlement), thereafter have recourse to the other provisions of that Chapter. (USTR, June 2003a, Article 19.6)

The chapter effectively promotes cooperation as a first step towards dispute settlement. However, it highlights several key aspects in dispute resolution, i.e. the need for timely resolution, access to outside experts and penalties.

The FTA created a list of environmental scholars that the Parties can select as members of the dispute panel. The dispute settlement panel is set up so that environmental expertise is used when deciding on environmental matters; panel members may consult outside expertise during deliberations. Additionally, the dispute settlement panel must consider the views and requests from non-governmental sources in regards to environmental issues. Article 19.8 requires each Party to allow public access to the enforcement process and Articles 19.3, 19.4 and 19.5 specifically mention public participation in regard to settling trade disputes (USTR, June 2003a). If a Party is found in violation of environmental laws, they must pay an annual fine that is deposited into a fund and used for environmental initiatives until they resolve the matter (USTR, June 2003c). If the Party does not comply after monetary fines, or if the Party does not pay their fine, the tariff benefits will be suspended until the fine amount is collected (USTR, June 2003c).

Audley credits the Chileans for the inclusion of “a number of important innovations...a special roster of panel members to hear trade-related environmental disputes, and the creation of an Environmental Affairs Council” (2003a, n.p.). In addition, Chile pushed for the incorporation of fines instead of punitive trade measures to enforce trade disputes. The FTA stipulates that the Parties must dedicate the money to funding environmental programs and the eight cooperative projects.

The Parties created the Environmental Affairs Council, under Article 19.3, to serve as a forum for settling trade disputes before invoking the Commission, promoting environmental discussions and exchanging information between the Parties.

The Parties hereby establish an Environment Affairs Council comprising cabinet level or equivalent representatives of the Parties, or their designees. The Council shall meet once a year or more often if the Parties agree, to discuss the implementation of, and progress under, this Chapter. Meetings of the Council shall include a public session, unless the Parties otherwise agree. [USTR, June 2003a, Article 19.3(1)]

The Council has met twice since the signing of the FTA.² In addition to the Council meeting, the governments held an information session for the public, which they publicized via the Federal Register in the US and El Mercurio, the major Chilean newspaper. It is important to note the public information session because, unlike the NAAEC, the governments take into consideration the views, data and research from non-governmental parties and disperse the information to the public. The representatives at the Council meeting were governmental officials, however: State Department officials, Chile's Ministry of Foreign Affairs and National Commission, US Trade Representative, Environmental Protection Agency, Department of Interior, Department of Justice, Department of Agriculture, and the U.S. Trade and Development Agency (USDS, October 24, 2005).

The Council is charged with overseeing the implementation and finalization of the eight cooperative projects described in Annex 19.3 of the environment chapter. The US and Chilean governments established the US-Chile Environmental Cooperation Agreement with the objective of creating a

² The second meeting was October 24, 2005 in Washington, D.C.

framework for cooperation . . . to promote the conservation and protection of the environment, the prevention of pollution and degradation of natural resources and ecosystems, and the rational use of natural resources, in support of sustainable development. (USDS, February 14, 2005)

The Council's responsibility is to oversee the work programs established under Annex 19.3 and create new programs for future improvements, in accordance with national priorities. For example, the Council identified six "priority areas" for 2005-2006:

1. Capacity building and exchange of information on strategies and experiences in order to improve the effectiveness of enforcement and compliance with environmental laws, norms and regulations;
2. Encouraging development and adoption of sound environmental practices and technologies, particularly in business enterprises;
3. Promoting sustainable development and management of environmental resources, including wild fauna and flora, and protected wild areas;
4. Civil society participation in the environmental decision-making process;
5. Environmental education; and
6. Other areas as the Parties may agree. (USDS, February 14, 2005)

The Eight Cooperative Projects

Traditionally, the environmental chapters of free trade agreements have included very general cooperation language, e.g. the Parties agree to adhere to their domestic environmental standards and not impose their laws on the other Party. Most environmental language in trade agreements remains general and "fuzzy", according to Economic/Political Officer Jackie Ward (personal communication, March 22, 2006). US-Chile FTA is different because the Chileans place great political importance on the environment. During the negotiations, the Chileans wanted to articulate and define the previously generalized cooperation language of FTA environmental chapters. The Chileans forced the US to negotiate specific projects for improving the environment. The US negotiators recognized the advantages of creating defined projects for both Parties and negotiated eight projects that reflect the major interests of both countries (personal

communication with Jackie Ward, March 22, 2006). Chapter 19, the environmental chapter of the agreement, institutionalizes Chile's commitment to improving its environment. By signing the FTA, Chile legally binds itself to upholding environmental law. The US, via the FTA, binds itself to helping Chile and fostering the advancement of Chilean environmental law, safety and regulations.

The projects (see Figure 4.1) deal with a range of environmental issues: reducing pollutants, improving agricultural practices, sharing expertise, improving wildlife and promoting the use of cleaner fuels. The eight projects do not list or require numerical standards or improvements. Instead, they offer Chile and the US the ability to work with their ministries and/or agencies to promote and pursue better environmental standards. The environmental section of the FTA promotes cooperation and sharing as the main ingredient necessary to move towards sustainable development while promoting economic prosperity.

What is interesting to note is that three of the projects are Chile-specific. The other projects promote information exchange so that both the US and Chile may learn from the prior expertise. The three Chile-specific projects are (a) Developing a Pollutant Release and Transfer Register (PRTR) in Chile; (b) Reducing Mining Pollution; (g) Improving Wildlife Protection and Management. The PRTR is a database of chemicals in the air, water and land. The aim of this project is to catalogue the harmful chemicals released into the air. The second project, reducing mining pollution, is aimed at identifying and reducing mining pollutants. The US will assist Chile in reducing the contamination and in identifying cost-effective alternatives. The Wildlife Protection project aims to create programs to build better management and protection of Chile and Latin America's

US-Chile FTA's Eight Cooperative Projects

a) *Developing a Pollutant Release and Transfer Register (PRTR) in Chile.* The PRTR is a publicly available database of chemicals that have been released to air, water and land or transferred off-site for further waste management. In developing the register, the Parties will cooperate and draw on lessons learned from other PRTR projects. Industrial facilities will report annually on the amounts of chemicals they have released or transferred and the final destination of those chemicals. Reported data will be made publicly available;

(b) *Reducing Mining Pollution.* The United States will assist Chile in reducing contamination and pollution resulting from past mining practices by working with Chile to identify sources of pollution and explore cost-effective remediation methods;

(c) *Improving Environmental Enforcement and Compliance Assurance.* The Parties will provide training and exchange of information to enhance each Party's capacity to enforce its environmental laws and regulations, and will develop and strengthen their cooperative relationships to promote compliance, enforcement, and environmental performance;

(d) *Sharing Private Sector Expertise.* The Parties will seek to increase environmental stewardship by inviting enterprises of each Party to share their experiences in developing and implementing programs that have reduced pollution, including, where appropriate, demonstrating the financial benefits of these measures;

(e) *Improving Agricultural Practices.* To help reduce pollution from agricultural practices in Chile, the Parties will adapt and implement a training program for Chilean farmers and other workers to promote appropriate handling of chemical pesticides and fertilizers, and to promote sustainable agriculture practices. The Parties will work jointly to modify existing training programs to fit Chilean agricultural practices and customs;

(f) *Reducing Methyl Bromide Emissions.* To mitigate methyl bromide emissions the Parties will seek to develop effective alternatives to that chemical; which Chile and the United States have committed to phase out under the *Montreal Protocol on Substances That Deplete the Ozone Layer*;

(g) *Improving Wildlife Protection and Management.* To protect wildlife in Chile and the Latin American region, the Parties will work together to build capacity to promote the management and protection of biological resources in the region, such as by collaborating with universities and providing programs for wildlife managers, other professionals and local communities in Chile and the region;

(h) *Increasing the use of cleaner fuels.* The Parties will work to improve the environmental quality of fuels, especially diesel fuel and gasoline, used in their

Figure 4.1: Environmental Cooperation, Chapter 19, Annex 19.3.1

biological resources. These projects are part of the FTA because of Chile's strong inclination to improving their environmental standards. Many Chileans believe that having high environmental standards create value added in the marketplace (personal communication, Janet Marsh on January 30, 2006 and Jackie Ward on March 22, 2006).

Implementation of the eight projects began immediately after the parties signed the agreement. To date, four projects have been completed: 1) Developing a Pollutant Release and Transfer Registry (PRTR), 2) Improving Environmental Enforcement and Compliance Assurance, 3) Improving Agricultural Practices, 4) Reducing Methyl Bromide Emissions. There was a high level of cooperation between the two governments and their ministries to complete the projects.

For the first project, the PRTR database, the US EPA funded and provided technical support to design a database of harmful chemicals released or transferred into the air. Chile's PRTR will be a publicly available database of potentially harmful chemicals that have been released into the air, water, and land or transferred for waste management. The creation of this database is important for continuing implementing high levels of environmental protection. In the past, researchers (Borregaard, 2004) have reported that the limited availability of data on environmental damage in Chile has restricted in depth studies on how trade affects the environment. Further, the environmental chapter calls for all industrial facilities to "report annually on the amounts of chemicals they have released or transferred and the final destination of those chemicals" [USTR, June 2003a, Annex 19.3.(1)(a)].

The parties completed the second project, improving environmental compliance, after holding several intensive workshops in September 2004 in Chile, examining the

different environmental enforcement approaches between the US and Chile. Particular attention was given to natural resource damage, which is a major concern in Chile and dispute resolution policies. The workshops ended with a public meeting in order to inform Chilean society of the workshop results and provide a forum to voice their environmental concerns.

The Parties completed the third project, improving agricultural practices, in July 2005. EPA representatives, along with Chilean experts, conducted workshops at agricultural schools outside of Santiago “to exchange information, approaches and policies on best practices in agriculture in the US and in Chile” (USDS, October 24, 2005). The US EPA funded the trip and provided software that measures agricultural output and the technical support needed to operate the software. The workshops focused on how to best use the land in an environmentally friendly manner. The EPA representative, Janet Marsh, who led the US representatives in their workshops, said that the workshops were highly successful in terms of the number of attendees and their enthusiasm to learn the software and the US’s best agricultural practices. Marsh commented that the people she taught in Chile are committed to improving their methods of agricultural output and making their agriculture practices more environmentally friendly, as well as economically viable (personal communication, January 30, 2006).

The last project completed to date was a study tour to examine alternatives to using methyl bromide in agriculture. The study tour took place September 12-16, 2005 and involved eight Chilean representatives, from the government, industry and academia. The US hosted the representatives on a tour of “agricultural sites in the US that have transitioned to alternatives to the agricultural fumigant methyl bromide, which both

countries must phase out under the *Montreal Protocol on Substances that Deplete the Ozone Layer*” (USDS, October 24, 2005).

The following projects have been initiated: 1) Reducing mining pollution, 2) Sharing private sector expertise, 3) Increasing the use of cleaner fuels and 4) Improving wildlife management and protection. The US Trade and Development Agency has been providing technical assistance to CONAMA in order to create “the regulatory framework for remediation of contaminated mining sites” (USDS, October 24, 2005). This project also aims to provide Chile with knowledge on how to secure financial mechanisms for cleaning mines. The sharing private sector expertise will focus on the forestry, pulp and paper industries. US and Chilean officials will work together to create workshops and study tours in order to promote more environmentally friendly processes. The UNEP and UNDP will work with the EPA and CONAMA to “implement a retrofit pilot project in Santiago” (USDS, October 24, 2005). The project is designed to help reduce emissions from existing heavy duty diesel vehicles in Santiago. The last project, a conservation program, has been in existence since 2004. The US Fish and Wildlife Service’s Wildlife Without Borders-Latin America and the Caribbean program provided two grants to facilitate capacity building and training activities in Chile (USDS, October 24, 2005). The Parties will meet again in April 2006 to evaluate the status of the remaining four cooperative projects and review the progress both countries have made in regards to upholding their commitments outlined in the ECA.

Business Implications

The market for environmental services and products in Chile continues to grow as the government adopts new regulations and standards. The government’s commitment to improving air quality, water resource management and other environmental

improvements is evident through its trade negotiations and the new green buses that represent Santiago's new, cleaner public transportation system. According to the US Commercial Service in Santiago, Chile's market for environmental consulting is "estimated to be US\$80 million, with a growth rate of 20 to 30 percent" (US Commercial Service). As discussed in the previous chapter, Chile has made great strides in increasing its level of environmental awareness and protection. This translates into increased business opportunities for both US and Chilean businesses. Because of the increased awareness and attention to environmental standards, the demand for environmental services is high. The types of services needed include: environmental impact assessments, pollution prevention and construction of wastewater and sewage treatment plants (US Commercial Service, 2006). The following section discusses the direct and indirect affects of the FTA's Chapter 19 on the business environment in Chile and the US.

The way in which the US-Chile FTA environmental policies affect the business environment, as well as society and the trading system, are not always direct outcomes of the agreement. Businesses selling environmentally friendly technology, goods or services see a direct effect because of the cost savings in the elimination of trade barriers and the opening or expanding of the marketplace. However, equally important are the indirect effects (Anderson and Blackhurst, 1992, p.18). According to Jackie Ward, the Economic/Political Officer of the American Embassy in Santiago, Chile, who participated in the environmental negotiations of the FTA, Chilean environment and industry benefits from the opening of the economy to more US businesses in an indirect, trickle-down manner. As more US businesses set up offices, factories, plants, etc, in

Chile, they implement the same standards from their factories in the US. As more companies implement their domestic standards abroad, these standards become best practices in Chile. This occurs for two reasons: 1) the Chileans are very eager to bring their industries up to US and EU standards and welcome the new ideas and best practices that foreign businesses bring with them; and 2) a multinational company is not going to lower their standards in a country such as Chile because of the fear of a negative public relations backlash. In order to compete with US and EU products, Chilean products must meet the developed world's environmental standards. The Chileans continually seek out access to US standards and knowledge. Adopting US environmental best practices and standards helps Chilean goods/products to penetrate new markets because they are certified "green". This has important business implications because it increases innovation and helps place Chilean products in a more competitive category in the world marketplace.

The agriculture industry has benefited the most from the sharing of best practices. While Chilean agricultural practices are high, they do not want a repeat of the 1989 grape crisis. Chile recognizes that in order to create more market opportunities and make money, it must meet the standards of the developed countries. Thus, Chile continually looks to improve their industries through new environmentally safe standards, labels or best practices. The third project completed to date, improving agricultural practices, exemplifies Chile's push to continually improve and receive new technology to bolster their agriculture industry.

The salmon cultivation industry has benefited greatly from adhering to higher environmental standards, in part due to the Chilean strategy of creating new market

opportunities. The industry established a framework for environmental management, under the Code of Best Environmental Practices, that the World Wildlife Fund (WWF) regards as one of the “most detailed, friendly, auditable” and environmentally orientated standards in the world. (Rosales, 2003, n.p.). The salmon industry’s eco-label makes it more attractive to foreign consumers who are moving towards buying environmentally friendly, “green” products.

One company that exhibits how the US-Chile FTA created a win-win situation for business, the environment and trade advocates is IMPEX, an export management company that markets conveyors systems and environmental technologies for US manufactures. The Chilean mining industry uses IMPEX’s products for continual maintenance and improvement. Under the FTA, IMPEX’s exports to Chile became duty-free which gave the Chilean mining industry more “access to US technology at a better price and a U.S. firm is more competitive in an important market” (USTR, June 6, 2004). While IMPEX directly benefited, the environment indirectly benefited because IMPEX’s products help clean up the mining industry’s pollutants. Copper mining pollutes air and water because of the smelting process which emits arsenic and carbon monoxide. Additionally, the mines contribute significantly to the amount of “suspended particulate matter” in the air, which is evident in the thick brown cloud layer hovering above Santiago (EIA, 2002).³ There is a significant business implication in the amount of harmful emissions that the mining industry produces. In 1994, CODELCO, the state owned copper mining company had to shut down Chuquicamata, the largest copper mine

³ The smog is particularly evident and harmful in Santiago because the mountains surround the city to the north, east and west with the pollutants entering from the mining industries located south of Santiago.

in the world, for a month because the extreme amount of fumes the mine emitted (EIA, 2002).⁴

From the US perspective, the FTA created a new market for businesses providing environmentally friendly machinery, equipment or technology and increased sales. According to the US Commercial Service in Santiago, Chile, there is a large market for suppliers of pollution control equipment (US Commercial Service, 2003, p.22). The two largest sanitation companies in Chile, Aguas Andias and ESVAL control over 50 percent of the water supply market. Aguas Andias has announced “plans to invest \$563 million in infrastructure and technologies for water supply and wastewater treatment by 2010” (US Commercial Service, 2003, p.22)

Within the past decade, advocates on both sides of the trade-environment nexus have seen how promoting free trade can be positive for the environment. Trade promotes economic growth, generates revenue and contributes to a government’s ability to buy and/or create environmentally friendly technologies and resources. However, unrestricted and unregulated trade can be extremely damaging to the environment. The maquiladoras along the US-Mexico border are evidence of the damage that unmanaged trade liberalization can produce (Esty, 2002).

John Audley, writing about the CAFTA, believes that the agreement will affect businesses. He points to the fact that today’s consumer is much more aware of how the product was made and from what material. International businesses must be aware of the change in consumer behavior and dedicate resources to guarantee that their plants overseas meet regulations and consumer demands. “Smart businesspeople know they

⁴ CODELCO stands for the Spanish name: Corporación Nacional del Cobre, Chile

cannot operate successfully in poorly regulated or unregulated environments” (Audley, 2003b. n.p.). The Chileans have learned this lesson and through their trade agreement with the US, have taken broad steps to correct the environmental degradation in their country and promote more eco-friendly standards.

Promoting growth, maintaining a viable economy and trading regime and preserving the environment are all in the best interests of business people around the world. Chileans recognize that the environmentally friendly label, eco-label, will set their products apart in the marketplace. As Porter describes, adhering to high environmental standards leads to innovation. The Chileans are innovative and recognize that they will increase their long term market opportunities by adhering to high environmental standards. The US-Chile FTA is an example of the Chileans innovation; they took the previously common, general environmental language of free trade agreements and defined it to benefit their industries.

CHAPTER 5 CONCLUSION

The questions discussed in the introduction about how trade and the environment affect each other have been covered in depth by scholars from around the world. This thesis posed a new question: how does the inclusion of environmental regulations in free trade agreements affect the business environment of the signing countries? This paper found that although the trade-environment debate is complex and often framed in a negative light, a win-win situation for businesses is possible. As Porter (1995) described and as Jha et al. (1999) found in various case studies of developing economies, high environmental standards and eco-labels can create business opportunities, competitiveness and profits. The US-Chile FTA points to the fact that including environmental provisions in a trade agreement benefits businesses on both sides of the agreement by opening up new market opportunities, expanding the existing market and fostering innovation.

Analyzing the effects of environmental clauses on businesses requires looking beyond the traditional economic, cost-benefit analysis and into the market opportunities and competitiveness resulting from high environmental standards. The Millennium Ecosystem Assessment (2005) points out that a country's natural resources are capital assets and traditional economic accounts do not effectively measure resource depletion and natural resource degradation. Cutting down a forest will show as a positive gain in GDP but only for the short-term. The "corresponding decline in assets" (slide 17) is not taken into account.

A number of countries that appeared to have positive growth in net savings (wealth) in 2001 actually experienced a loss in wealth when degradation of natural resources were factored into the accounts. (slide 17)

However, as Esty articulates, economics play an important role in working towards a paradigm of environmental protection and free trade. He views environmental regulations as “ground rules for international commerce” and regards them as essential bulwarks “against market failure in the international economic system” (Esty, 2001, n.p.).

The 2005 Millennium Development report found that while human well-being and economic development has increased significantly, humans have changed the earth’s ecosystem “more rapidly and extensively” over that past 50 years “than in any comparable period of time in human history” (slide 39). In order to reduce environmental degradation and maintain the global trading regime, which promotes economic growth, the international community must find a balance. This thesis focused on the US-Chile FTA because it represents an effective compromise between promoting trade and upholding high environmental standards.

The object of this thesis is not to offer solutions or possible paths for bridging the two issues. Instead, it is intended as a starting point for the different sides to understand the positive outcomes that can result from combining trade and environmental issues in trade agreements. The Chilean case, while unique and only in its third year of implementation, offers positive results for all parties: the business community, the environmentalists and trade advocates. The US-Chile FTA incorporates civil society, introduces defined environment obligations and created a commission to oversee the implementation and effective enforcement of the current and future obligations of the Parties.

Findings

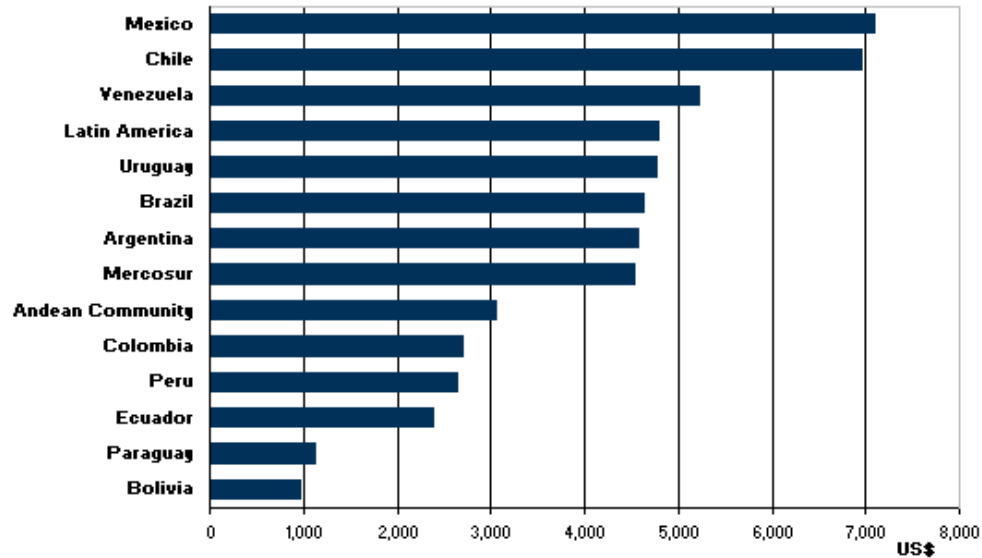
The thesis found that a win-win situation is possible within the trade-environment debate. The US-Chile FTA shows us that businesses, governments, environmentalists and civil society all benefit from the inclusion of environmental clauses in a trade agreement. Chilean businesses, universities and the government benefited from the eight projects outlined in Annex 19.3 because they received technology and expertise from the US for free or minimal costs. Civil society, through their inclusion in the Environment Council, will benefit from having a greater voice in the trade-environment debate. The agreement is positive for the Chilean economy overall and will continue to be beneficial because it contributes to the idea that the business environment in Chile is open, transparent and “green”.

The positive results are both direct and indirect, as discussed in the previous chapter. The agreement immediately eliminated tariffs on 90 percent of the trade between the US and Chile which expanded the existing market and created new markets for smaller companies such as IMPEX. The direct benefits are that US companies selling environmental technology have a larger and complex market, because of the elimination of the tariffs, in Chile. The Chileans benefit from access to more environmental technology from a larger market and at a lower cost. Access to cleaner, newer, safer technology will benefit Chilean businesses in the long run because in order to export to the US and EU, major Chilean export markets, their goods must meet high environmental standards. In order to export and make money, the Chileans must adhere to those standards. Indirectly, Chilean businesses benefit from the opening of the economy to foreign businesses. According to Jackie Ward, of the Economic/Political division in the American Embassy in Santiago, the FTA has opened more doors for US businesses to do

business in Chile. These companies bring with them and implement their high environmental standards in Chile. Despite the argument that many MNCs move operations abroad in order to decrease costs due to lower government enforcement of environmental and labor standards, very few implement lower standards because of the fear, in today's world of heightened "green" consumerism, of negative public relations agreement (personal communication, March 22, 2006).

Significance

While the case study is specific to Chile and should not be applied generally, across the board to all Latin American countries or developing countries, the case represents a model for developing countries. The model, however, should only be applied once developing countries have met certain criteria, such as GDP per capita levels, transparency, openness to foreign investment and exhibit an existing commitment to upholding environmental standards. Developing countries, at similar levels to the above mentioned items as Chile, can use the US-Chile FTA as a model for future trade agreement negotiations with developed countries as a way to create concrete, beneficial environmental programs and coordination. As figure 5.1 shows, very few countries in Latin America have GDP levels as high as Chile's. The environmental Kuznets Curve states that a country's level of environmental degradation will begin to decrease once the country meets middle income levels (Esty, 2001; Yandle, et al., 2002; Shafik and Bandyopadhyay, 1992; Grossman and Krueger, 1993). Thus, countries with lower levels of GDP will not have the willingness, incentive or the ability to dedicate the needed resources, time, energy and money to improving the environment when more pressing matters such as poverty exist.



Source: Latin Focus, 2005

Figure 5.1 Latin American Gross Domestic Product (GDP), 2005

Other factors that must be taken into consideration is the government's ability to govern, its transparency and openness to foreign investment. The 2006 Pilot

Environmental Performance Index reports that:

A country's level of development emerges as an important driver of environmental performance. Good environmental results correlate significantly with good governance. Policy emphasis at the national and global levels on establishing the rule of law, eliminating corruption, promoting a robust policy dialogue, and setting up effective regulatory institutions appears fully justified. (Esty, 2006, p.46)

In terms of business, as Jackie Ward expressed, foreign companies can greatly contribute to a country's "best practices" in terms of environmental protection. Chile has been particularly savvy in this regards; they have learned from foreign companies and implemented many of their standards. Thus, the more open an economy is to foreign competition and investment, the more it stands to gain in terms of knowledge and information. The US-Chile FTA served as means of further opening the Chilean economy, which indirectly, created more business opportunities for companies selling environmental technology.

It is not possible to do an accurate and complete economic analysis of the effects of the FTA trade and environmental policies on each other in the short time that the FTA has been in operation. In order to statistically know if a particular company has benefited, a more rigorous economic study is needed. The main purpose of this thesis was to analyze the business opportunities for US and Chilean businesses with the hope of bringing more congruence to the trade-environment debate. Instead of viewing the debate as a win-loss situation in which the North dictates the rules of the game to the developing world, the US-Chile FTA indicates that the trade-environment debate can prove beneficial to both parties.

Limitations and Future Research

This thesis examined the business opportunities that arise from implementing environmental standards via trade agreements. It did not focus on specific industries or environmental concerns. Instead, it took a broader approach to see how including environmental clauses in free trade agreements affects the business environment in the signing countries. The study is limited because of time, information available and defining direct versus indirect effects. The US-Chile FTA is only in its third year, thus, information on companies that have benefited or lost due to the agreement is not clear. As negotiators of the FTA and other scholars point out, clearly separating outcomes from FTA policies versus governmental or economic policies is difficult.

While the thesis found that the inclusion of environmental standards in FTAs can create market and business opportunities, more research and analysis is needed in order to quantify the results for the business community. Future research should focus on specific industries and different size businesses in order to understand if the effects are general or

industry specific. Additionally, examining how Chile includes the environment in its future trade agreements is of particular importance to the study of business implications.

APPENDIX A
FREE TRADE AGREEMENT
BETWEEN THE GOVERNMENT OF THE UNITED STATES OF AMERICA AND
THE GOVERNMENT OF THE REPUBLIC OF CHILE

Chapter Nineteen
Environment

Objectives

The objectives of this Chapter are to contribute to the Parties' efforts to ensure that trade and environmental policies are mutually supportive and to collaboratively promote the optimal use of resources in accordance with the objective of sustainable development; and to strive to strengthen the links between the Parties' trade and environment policies and practices to further the trade expanding goals of this Agreement, including through promoting non-discriminatory measures, avoiding disguised barriers to trade, and eliminating trade distortions where the result can directly benefit both trade and the environment.

Article 19.1: Levels of Protection

Recognizing the right of each Party to establish its own levels of domestic environmental protection and environmental development policies and priorities, and to adopt or modify accordingly its environmental laws, each Party shall ensure that its laws provide for high levels of environmental protection and shall strive to continue to improve those laws.

Article 19.2: Enforcement of Environmental Laws

1.

(a) A Party shall not fail to effectively enforce its environmental laws, through a sustained or recurring course of action or inaction, in a manner affecting trade between the Parties, after the date of entry into force of this Agreement.

(b) The Parties recognize that each Party retains the right to exercise discretion with respect to investigatory, prosecutorial; regulatory, and compliance matters and to make decisions regarding the allocation of resources to enforcement with respect to other environmental matters determined to have higher priorities. Accordingly, the Parties understand that a Party is in compliance with subparagraph (a) where a course of action or inaction reflects a reasonable exercise of such discretion, or results from a *bona fide* decision regarding the allocation of resources.

2. The Parties recognize that it is inappropriate to encourage trade or investment by weakening or reducing the protections afforded in domestic environmental laws. Accordingly, each Party shall strive to ensure that it does not waive or otherwise derogate from, or offer to waive or otherwise derogate from, such laws in a manner that weakens or reduces the protections afforded in those laws as an encouragement for trade with the other Party, or as an encouragement for the establishment, acquisition, expansion, or retention of an investment in its territory.

3. Nothing in this Chapter shall be construed to empower a Party's authorities to undertake environmental law enforcement activities in the territory of the other Party.

Article 19.3: Environment Affairs Council

1. The Parties hereby establish an Environment Affairs Council comprising cabinet level or equivalent representatives of the Parties, or their designees. The Council shall meet once a year, or more often if the Parties agree, to discuss the implementation of, and progress under, this Chapter. Meetings of the Council shall include a public session, unless the Parties otherwise agree.

2. In order to share innovative approaches for addressing environmental issues of interest to the public, the Council shall ensure a process for promoting public participation in its work, including by seeking advice from the public in developing agendas for Council meetings and by engaging in a dialogue with the public on those issues.

3. The Council shall seek appropriate opportunities for the public to participate in the development and implementation of cooperative environmental activities, including through the United States - Chile Environmental Cooperation Agreement, as set out in Annex 19.3.

4. All decisions of the Council shall be taken by mutual agreement and shall be made public, unless the Council decides otherwise, or as otherwise provided in this Agreement.

Article 19.4: Opportunities for Public Participation

1. Each Party shall provide for the receipt and consideration of public communications on matters related to this Chapter. Each Party shall promptly make available to the other Party and to its public all communications it receives and shall review and respond to them in accordance with its domestic procedures.

2. Each Party shall make best efforts to respond favorably to requests for consultations by persons or organizations in its territory regarding the Party's implementation of this Chapter.

3. Each Party may convene, or consult an existing, national consultative or advisory committee, comprising members of its public, including representatives of business and

environmental organizations, and other persons, to advise it on the implementation of this Chapter.

Article 19.5: Environmental Cooperation

1. The Parties recognize the importance of strengthening capacity to protect the environment and promote sustainable development in concert with strengthening trade and investment relations between them. The Parties agree to undertake cooperative environmental activities, in particular through:

(a) pursuing, through their relevant ministries or agencies, the specific cooperative projects that the Parties have identified and set out in Annex 19.3; and

(b) promptly negotiating a United States – Chile Environmental Cooperation Agreement to establish priorities for further cooperative environmental activities, as elaborated in Annex 19.3, while recognizing the ongoing importance of environmental cooperation undertaken outside this Agreement.

2. Each Party shall take into account public comments and recommendations it receives regarding cooperative environmental activities the Parties undertake pursuant to this Chapter.

3. The Parties shall, as they deem appropriate, share information on their experiences in assessing and taking into account positive or negative environmental effects of trade agreements and policies.

Article 19.6: Environmental Consultations

1. A Party may request consultations with the other Party regarding any matter arising under this Chapter by delivering a written request to the other Party.

2. The Parties shall consult promptly after delivery of the request. The requesting Party shall provide specific and sufficient information in the request for the other Party to respond.

3. The Parties shall make every attempt to arrive at a mutually satisfactory resolution of the matter and may seek advice or assistance from any person or body they deem appropriate in order to fully examine the matter at issue.

4. If the Parties fail to resolve the matter through consultations, either Party may request that the Council be convened to consider the matter by delivering a written request to the other Party.

5. The Council shall promptly convene and shall endeavor to resolve the matter, including, where appropriate, by consulting governmental or outside experts and having recourse to such procedures as good offices, conciliation, or mediation.

6. If the matter concerns whether a Party is conforming to its obligations under Article 19.2(1)(a), and the Parties have failed to resolve the matter within 60 days of a request for consultations under paragraph 1, the complaining Party may request consultations under Article 22.4 (Consultations) or a meeting of the Commission under Article 22.5 (Commission - Good Offices, Conciliation, and Mediation) and, as provided in Chapter Twenty-Two (Dispute Settlement), thereafter have recourse to the other provisions of that Chapter.

7. The Council may, where appropriate, provide information to the Commission regarding any consultations held on the matter.

8. Neither Party may have recourse to dispute settlement under this Agreement for any matter arising under any provision of this Chapter other than Article 19.2(1)(a).

9. Neither Party may have recourse to dispute settlement under this Agreement for a matter arising under Article 19.2(1)(a) without first pursuing resolution of the matter in accordance with this Article.

10. In cases where the Parties agree that a matter arising under this Chapter is more properly covered by another agreement to which the Parties are party, they shall refer the matter for appropriate action in accordance with that agreement.

Article 19.7: Environment Roster

1. The Parties shall establish within six months after the date of entry into force of this Agreement and maintain a roster of at least 12 individuals who are willing and able to serve as panelists in disputes arising under Article 19.2(1)(a). Unless the Parties otherwise agree, four members of the roster shall be selected from among individuals who are non-Party nationals. Environment roster members shall be appointed by mutual agreement of the Parties, and may be reappointed. Once established, a roster shall remain in effect for a minimum of three years, and shall remain in effect thereafter until the Parties constitute a new roster.

2. Environment roster members shall:

(a) have expertise or experience in environmental law or its enforcement, international trade, or the resolution of disputes arising under international trade agreements;

(b) be chosen strictly on the basis of objectivity, reliability, and sound judgment;

(c) be independent of, and not affiliated with or take instructions from, either Party; and

(d) comply with a code of conduct to be established by the Commission.

3. Where a Party claims that a dispute arises under Article 19.2(1)(a), Article 22.9 (Panel Selection) shall apply, except that:

(a) where the Parties so agree, the panel shall be composed entirely of panelists meeting the qualifications in paragraph 2; and

(b) if the Parties cannot so agree, each Party may select panelists meeting the qualifications set out in paragraph 2 or in Article 22.8 (Qualifications of Panelists).

Article 19.8: Procedural Matters

1. Each Party shall ensure that judicial; quasi-judicial; or administrative proceedings are available under its law to sanction or remedy violations of its environmental laws.

(a) Such proceedings shall be fair, open, and equitable, and to this end shall comply with due process of law, and be open to the public (except where the administration of justice otherwise requires).

(b) Each Party shall provide appropriate and effective remedies or sanctions for a violation of its environmental laws that:

(i) take into consideration the nature and gravity of the violation, any economic benefit the violator has derived from the violation, the economic condition of the violator, and other relevant factors; and

(ii) may include compliance agreements, penalties, fines, imprisonment, injunctions, the closure of facilities, and the cost of containing or cleaning up pollution.

2. Each Party shall ensure that interested persons may request the Party's competent authorities to investigate alleged violations of its environmental laws and that the competent authorities give such requests due consideration in accordance with its law.

3. Each Party shall ensure that persons with a legally recognized interest under its law in a particular matter have appropriate access to judicial; quasi-judicial; or administrative proceedings for the enforcement of the Party's environmental laws.

4. Each Party shall provide persons appropriate and effective rights of access to remedies in accordance with its laws, which may include the right:

(a) to sue another person under that Party's jurisdiction for damages under that Party's environmental laws;

(b) to seek sanctions or remedies such as monetary penalties, emergency closures, or orders to mitigate the consequences of violations of its environmental laws;

(c) to request the competent authorities to take appropriate action to enforce the Party's environmental laws in order to protect the environment or to avoid environmental harm; or

(d) to seek injunctions where a person suffers, or may suffer, loss, damage, or injury as a result of conduct by another person under that Party's jurisdiction contrary to that Party's environmental laws or from tortious conduct that harms human health or the environment.

Article 19.9: Relationship to Environmental Agreements

The Parties recognize the importance of multilateral environmental agreements, including the appropriate use of trade measures in such agreements to achieve specific environmental goals. Recognizing that in paragraph 31(i) of the *Ministerial Declaration adopted on November 14, 2001 in Doha*, WTO members have agreed to negotiations on the relationship between existing WTO rules and specific trade obligations set out in multilateral environmental agreements, the Parties shall consult on the extent to which the outcome of the negotiations applies to this Agreement.

Article 19.10: Principles of Corporate Stewardship

Recognizing the substantial benefits brought by international trade and investment as well as the opportunity for enterprises to implement policies for sustainable development that seek to ensure coherence between social; economic and environmental objectives, each Party should encourage enterprises operating within its territory or jurisdiction to voluntarily incorporate sound principles of corporate stewardship in their internal policies, such as those principles or agreements that have been endorsed by both Parties.

Article 19.11: Definitions

For purposes of this Chapter:

environmental law means any statute or regulation of a Party, or provision thereof, the primary purpose of which is the protection of the environment, or the prevention of a danger to human life or health, through:

(a) the prevention, abatement, or control of the release, discharge, or emission of pollutants or environmental contaminants;

(b) the control of environmentally hazardous or toxic chemicals, substances, materials, and wastes, and the dissemination of information related thereto; or

(c) the protection or conservation of wild flora and fauna, including endangered species, their habitat, and specially protected natural areas, in the Party's territory, but does not include any statute or regulation, or provision thereof, directly related to worker safety or health.

For greater certainty, **environmental law** does not include any statute or regulation, or provision thereof, the primary purpose of which is managing the commercial harvest or exploitation, or subsistence or aboriginal harvesting, of natural resources.

For purposes of the definition of “environmental law,” the primary purpose of a particular statutory or regulatory provision shall be determined by reference to its primary purpose, rather than to the primary purpose of the statute or regulation of which it is part.

For the United States, **statute or regulation** means an act of Congress or regulation promulgated pursuant to an act of Congress that is enforceable by action of the federal government.

For the United States, **territory** means its territory as set out in Annex 2.1 as well as other areas with respect to which it exercises sovereignty, sovereign rights, or jurisdiction.

Annex 19.3

Environmental Cooperation

1. Recognizing that cooperation on environmental matters provides enhanced opportunities to improve the environment and to advance common commitments on sustainable development, the Parties agree, pursuant to Article 19.5(1)(a) of this Agreement, to pursue, through their relevant ministries or agencies, the following cooperative projects identified during the negotiation of this Agreement:

(a) *Developing a Pollutant Release and Transfer Register (PRTR) in Chile.* The PRTR is a publicly available database of chemicals that have been released to air, water and land or transferred off-site for further waste management. In developing the register, the Parties will cooperate and draw on lessons learned from other PRTR projects. Industrial facilities will report annually on the amounts of chemicals they have released or transferred and the final destination of those chemicals. Reported data will be made publicly available;

(b) *Reducing Mining Pollution.* The United States will assist Chile in reducing contamination and pollution resulting from past mining practices by working with Chile to identify sources of pollution and explore cost-effective remediation methods;

(c) *Improving Environmental Enforcement and Compliance Assurance.* The Parties will provide training and exchange of information to enhance each Party’s capacity to enforce its environmental laws and regulations, and will develop and strengthen their cooperative relationships to promote compliance, enforcement, and environmental performance;

(d) *Sharing Private Sector Expertise.* The Parties will seek to increase environmental stewardship by inviting enterprises of each Party to share their experiences in developing and implementing programs that have reduced pollution, including, where appropriate, demonstrating the financial benefits of these measures;

(e) *Improving Agricultural Practices.* To help reduce pollution from agricultural practices in Chile, the Parties will adapt and implement a training program for Chilean farmers and other workers to promote appropriate handling of chemical pesticides and fertilizers, and to promote sustainable agriculture practices. The Parties will work jointly to modify existing training programs to fit Chilean agricultural practices and customs;

(f) *Reducing Methyl Bromide Emissions.* To mitigate methyl bromide emissions the Parties will seek to develop effective alternatives to that chemical; which Chile and the United States have committed to phase out under the *Montreal Protocol on Substances That Deplete the Ozone Layer*;

(g) *Improving Wildlife Protection and Management.* To protect wildlife in Chile and the Latin American region, the Parties will work together to build capacity to promote the management and protection of biological resources in the region, such as by collaborating with universities and providing programs for wildlife managers, other professionals and local communities in Chile and the region;

(h) *Increasing the use of cleaner fuels.* The Parties will work to improve the environmental quality of fuels, especially diesel fuel and gasoline, used in their territories by providing joint training and technical assistance on a variety of fuels-related environmental issues. The Parties will publicize the benefits of this work.

2. The Parties shall pursue additional cooperative environmental activities under a United States – Chile Environmental Cooperation Agreement, as set out in Article 19.5(1)(b), and in other fora.

(a) In negotiating the Cooperation Agreement, the Parties have agreed to take into account public input regarding priority areas for bilateral cooperation;

(b) The Cooperation Agreement will, *inter alia*:

(i) establish any institutional framework needed to coordinate the various elements of the Cooperation Agreement;

(ii) establish procedures for the development of periodic work programs that set priorities for cooperative activities;

(iii) provide for consultation and review, at regular intervals, of the work program for those cooperative activities;

(iv) create appropriate opportunities for the public to participate in the development of new cooperative activities and the implementation of agreed activities;

(v) encourage the exchange of information on the Parties' environmental policies, laws, and practices;

(vi) promote the understanding and effective implementation of multilateral environmental agreements to which both Parties are party;

(vii) promote the collection and publication of comparable information on the Parties' environmental regulations, indicators, and enforcement activities; and

(viii) provide for regular consultation with the Environment Affairs Council established in Article 19.3 (Environment Affairs Council) regarding the priorities that the Parties identify, as well as future cooperative work.

3. Cooperation under the Cooperation Agreement may include work in the following fields of activity:

(a) improving capacity to achieve environmental compliance assurance, including enforcement and voluntary environmental stewardship;

(b) encouraging small- and medium-size enterprises to adopt sound environmental practices and technologies;

(c) developing public-private partnerships to achieve environmental objectives;

(d) promoting sustainable management of environmental resources, including wild fauna and flora, and protected wild areas;

(e) exploring environmental activities pertinent to trade and investment and the improvement of environmental performance;

(f) developing and implementing economic instruments for environmental management.

4. The Parties may implement cooperative activities under the Cooperation Agreement by:

(a) exchanging professionals, technicians, and specialists, including through study visits, to promote the development of environmental policies and standards;

(b) organizing joint conferences, seminars, workshops, meetings, training sessions, and outreach and education programs;

(c) supporting, developing, and implementing collaborative projects and demonstrations, including joint research projects, studies, and reports;

(d) facilitating linkages among representatives from academia, industry, and government to promote exchange of scientific and technical information and best practices, and the development and implementation of cooperative projects; and

(e) engaging in other activities, that the Parties may undertake pursuant to the Cooperation Agreement.

5. The Parties recognize that the funding, scope, and duration of the projects listed in paragraph 1 and cooperative activities pursued under the Cooperation Agreement will be undertaken in accordance with the Parties' personnel and financial resources.

6. The Parties shall make publicly available information regarding the projects and activities they undertake pursuant to this Annex.

APPENDIX B
THE EVOLVING CONTEXT OF GLOBAL ENVIRONMENTAL GOVERNANCE

	1960s to mid-1980s	mid-1980s to today
Issues	<p>Most issues are related to point-source pollution and protection of endangered species. Problems are usually seen as within national boundaries.</p> <p>Examples include:</p> <ul style="list-style-type: none"> • Air and water quality • Noise and nuisances • Contaminated land • Wastes and recycling • Toxic chemicals • Radioactivity • Marine mammals protection 	<p>Most issues are transboundary or global. Pollution problems are generally non-point source. Emphasis is on building international regimes to govern common property resources rather than just domestic legislation.</p> <p>Examples include:</p> <ul style="list-style-type: none"> • Climate change • Food security (topsoil) • Fisheries • Forests • Biodiversity • Water • Persistent organic pollutants • Biotechnology, genetically modified foods • Sustainable development/resource management
Politics	<p>Simple -- issues are less interlinked and government agencies are primarily negotiators between victims/problem and polluter.</p> <p>Need is clear and sense of urgency higher because problems and their impacts are more apparent, immediate, and measurable.</p>	<p>Complex -- issues are often cross-cutting, involving a host of affected and interested parties so that negotiations are more difficult.</p> <p>Need is unclear and sense of urgency lower because problems and their impacts are long-term, more diffused, and less easily perceptible.</p>
Policy actors	Governments and intergovernmental organizations.	Governments, intergovernmental organizations, nongovernmental international organizations, nonprofit organizations, citizens groups, indigenous peoples, and industry.
Policy tools	Mainly laws and regulations.	More sophisticated tools other than laws and regulations, e.g., using market forces in emissions trading schemes and modeling.

Public driver	Immediate threats to public health.	Long-term threats to strategic natural resources and common property resources, in addition to public health.
Resolution mode	Confrontation.	Collaboration/partnerships.
status	Significant progress -- problems are simpler and can be addressed quite effectively through government regulation.	Little progress -- problems are more complex and require more than government regulations to mitigate.
Industry view	Environment is mainly a technical issue. Environment is an externality so that addressing environmental concerns adds to cost of production.	Environment is mainly a business issue. Environment holds business opportunities. Environmental actions create financial benefits (efficiency gains) and nonfinancial gains (positive public opinion on corporate social responsibility).
Institutions	Adequate -- centers round national government agencies and a few intergovernmental bodies and treaties, e.g., UNEP and CITIES. Higher public confidence in institutions.	Inadequate -- fragmented. Many multilateral environmental agreements (MEAs) concluded in the last 25 years but no larger structure or framework to coordinate policies and collective responses among them. Increasing interface with nonenvironmental institutions, such as the multilateral development banks (e.g., World Bank, the International Monetary Fund, the Asian Development Bank) and international trade organizations (e.g., World Trade Organization and the North American Free Trade Agreement). Lower public confidence in institutions.
Science	Science as main criteria in assessing problems and guiding mitigation strategies.	Social impact and economic costs are equally important as science in assessing problems and guiding mitigation strategies.

Source: The Rand Corporation, http://www.rand.org/scitech/stpi/ourfuture/Newworld/sec7_context.html

LIST OF REFERENCES

- Anderson, Kym and Blackhurst, Richard. (1992). *The Greening of World Trade Issues*. Ann Arbor, Michigan: University of Michigan Press.
- Audley, John. (2003a). *Testimony on the Environmental Provisions of the U.S.-Chile and U.S.-Singapore Free Trade Agreements*. Washington, DC: Carnegie.
- . (2003b). *Environment and Trade: The Linchpin to Successful CAFTA Negotiations?* Washington, DC: Carnegie.
- Bernasconi-Osterwalder, Nathalie. (October 20-21, 2005). *Trade and the Environment: Where Do We Stand After Doha?* Retrieved March 5, 2006, from Center for International Environmental Law (CIEL): http://www.ciel.org/Publications/IDDRpresentation_Bernasconi_24Oct05.pdf
- Bhagwati, Jagdish. (1993). *The Case for Free Trade*, *Scientific American*, 269:5, p. 42-49.
- . (1996). *Trade and the Environment: Does Environmental Diversity Detract from the Case for Free Trade?* In Jagdish Bhagwati and Robert Hudec (Eds.), *Fair Trade and Harmonization: Prerequisites for Free Trade?* (p. 159-223). Cambridge: MIT Press.
- . (1999). *Third World Intellectuals and NGOs Statement Against Linkage*. Letter drafted by Bhagwati and signed by several dozen academics, circulated on the Internet; copy on file with author.
- . (2000). *On Thinking Clearly About the Linkage Between Trade and the Environment*. In H. Siebert (Ed.), *The Economics of International Environmental Problems* (p. 243-256). Tübingen: Mohr Siebeck.
- Bhagwati, Jagdish and Hudec, Robert E. (1996). *Fair Trade and Harmonization: Prerequisites for Free Trade?* Cambridge: MIT Press.
- Boardman, Margaret. (2000). *The Elusive Free Trade of the Americas Agreement (FTAA), Political and Economic Roadblocks to Hemispheric Integration in 2005*. Retrieved March 5, 2006, from <http://www.isop.ucla.edu/profmex/volume5/2spring00/00boardman1.htm>
- Bridges Between Trade and Sustainable Development. (2001). *The Doha Declarations Meaning Depends on the Reader*. International Centre for Trade and Sustainable Development, Year 5, No 9. Retrieved March 22, 2006, from, International Union for Conservation of Nature: [http://www.iucn.org/themes/pbia/themes/trade/training/Bridges%20 Env%20 Significance%20of%20Doha%20Declaration.pdf](http://www.iucn.org/themes/pbia/themes/trade/training/Bridges%20Env%20Significance%20of%20Doha%20Declaration.pdf).

- CIA Factbook. (2005). United Status. Retrieved March 5, 2006, from <http://www.cia.gov/cia/publications/factbook/geos/us.html#Econ>
- Collins, Joseph, and Lear, John. (1994). *Chile's Free Market Miracle: A Second Look*. San Francisco: Food First.
- Comision Nacional del Medio Ambiente (CONAMA). (2005). CONAMA entrega más de \$270 millones a proyectos de protección ambiental. Retrieved March 5, 2006, from <http://www.conama.cl/portal/1255/article-31616.html>
- Constable, Pamela and Valenzuela, Arturo. (1991). *A Nation of Enemies: Chile Under Pinochet*. New York: W.W Norton and Company.
- Cordonier Segger, Marie-Claire. (2004). Sustainable Development in the Negotiation of the FTAA. *Fordham International Law Journal*, 27. p. 1118-1141.
- CSIS Globalization Connections. (n.dA) The Environment and NAFTA. Retrieved March 5, 2006, from <http://www.globalization101.org/index.php?file=issue&pass1=subs&id=150>
- (n.dB). The Tuna-Dolphin Case. Retrieved March 5, 2006, from <http://www.globalization101.org/index.php?file=issue&pass1=subs&id=149>
- Deere, Carolyn L. and Esty, Daniel C. (2002). *Greening the Americas: NAFTA's Lessons for Hemisphere Trade*. Cambridge: MIT Press.
- Destler, I.M. & Balint, Peter J. (1999). *The New Politics of American Trade: Trade, Labor and the Environment*. Washington: Institute for International Economics.
- EIU Viewswire. (March 8, 2005). Chile: Regulations: Trade. Retrieved March 5, 2006, from <http://www.viewswire.com>
- Embassy of Chile. (2005). Ecology and Environment: Chilean Environmental Law. (Washington, D.C.). Retrieved March 5, 2006, from <http://www.chile-usa.org/ecologye.htm>
- Embassy of Chile. (1999). Chile Facts on Demand, Foreign Investment. Washington, D.C.
- Energy Information Administration (EIA). (July 2002). Chile: Environmental Issues. Retrieved March 5, 2006, from <http://www.eia.doe.gov/emeu/cabs/chilenv.html>
- Esty, D. C. (1994). *Greening the GATT: Trade, Environment , and the Future*. Washington DC: Institute for International Economics.
- (2001). Bridging the Trade-Environment Divide. *Journal of Economic Perspectives*, 15:3, p. 113-130. Retrieved March 6, 2006, from <http://www.sice.oas.org/geograph/environment/esty.asp>

- Esty, D.C., Levy, M.A., et al. (2006). Pilot 2006 Environmental Performance Index. New Haven: Yale Center for Environmental Law and Policy.
- Federation of International Trade Associations (FITA). (April 2005). Chile. Retrieved March 5, 2006, from <http://fita.org/countries/chile.html>
- Foreign Trade Information Systems (SICE). (1993). North American Agreement on Environmental Cooperation (NAAEC). Retrieved March 5, 2006, from Foreign Trade Information Systems: <http://www.sice.org/trade/nafta/naftatce.asp#environ>
- (December 5, 1996). Free Trade Agreement between the Government of Canada and the Government of the Republic of Chile. Retrieved March 20, 2006, from Foreign Trade Information Systems: http://www.sice.oas.org/trade/chican_e/Chca01e.asp#A-04
- (February 6, 1997). Agreement on Environment Cooperation between the Government of Canada and the Government of the Republic of Chile. Retrieved March 20, 2006, from Foreign Trade Information System: http://www.sice.oas.org/trade/chican_e/env1e.asp
- (February 15, 2003). Free Trade Agreement between the Republic of Korea and the Republic of Chile. Retrieved March 5, 2006, from Foreign Trade Information Systems: http://www.sice.oas.org/Trade/ChiSKorea_e/Chap10_e.asp#Article%2010.18
- Fuentes, Olga M. & Gilchrist, Simon. (2005). Trade Orientation and Labor Market Evolution: Evidence from Chilean Plant-Level Data. Retrieved March 5, 2006, from http://www.bcentral.cl/eng/stdpub/studies/centralbanking/pdf/v8/411_435_Fuentes_Gilchrist.pdf
- Global Environment Facility (GEF). (2003). Project Database: Chile - Sustainable Transport and Air Quality for Santiago. Retrieved March 10, 2006, from <http://www.gefonline.org/projectDetails.cfm?projID=1349>
- Global Trade Negotiations. (April 2004). Sanitary and Phytosanitary Measures and Technical Barriers to Trade Summary. Retrieved March 5, 2006, from Center for International Development at Harvard University website: <http://www.cid.harvard.edu/cidtrade/issues/spstbt.html>
- Gobierno de Chile. (2005). Transantiago. Retrieved March 10, 2006, from http://www.gobierno.cl/transantiago/index_transantiago.asp
- González, Gustavo. (n.d). *Environmental Law Old After a Decade*. Retrieved March 5, 2006, from <http://www.tierramerica.net/2004/0306/iacentos2.shtml>
- Grossman, Gene M. and Alan B. Krueger. 1993. Environmental Impacts of a North American Free Trade Agreement. In Peter M. Garber (Ed.), *The Mexico-US Free Trade Agreement*. (p. 13-56). Cambridge: MIT Press.

- . (1995) Economic Growth and the Environment. *Quarterly Journal of Economics*, 110, p. 353-77.
- Guzman, Andrew T. (2002). *Global Governance and the WTO*. Retrieved March 5, 2006, from Social Science Research Network: ssrn.com/abstract_id=321365
- HSBC (Hongkong and Shanghai Banking Corporation). (August 2005). Chile Business Profile: Investment Opportunities. Retrieved March 5, 2006, from http://www.hsbc.com.hk/hk/bps/rce/rce_bizinfo.htm
- Institute for Sustainable Development. (2000). Environmental and Trade: A Handbook. Part 5.1: Legal and Policy Linkages. Retrieved March 5, 2006, from http://www.iisd.org/trade/handbook/5_1.htm
- Jha, Veena, Markandya, Anil and Vossenaar, René. (1999). *Reconciling Trade and the Environment*. Northampton: Edward Elgar Publishing, Inc.
- Kamal; Gueye Kamal & Imaib, Kenichi. (June 23, 2003). Harmonizing Trade and Environment in Recent Free Trade Agreements in the Asia-Pacific Region. *International Review for Environmental Strategies*, 4:2, p. 265-285.
- Lagos, Gustavo and Velasco, Patricio. (1998). Environmental Policies and Practices in Chilean Mining. In Alyson Warhurst (Ed.), *Mining and the Environment: Case Studies from the Americas*. International Development Research Centre (IDRC). Retrieved March 5, 2006, from IDRC: http://www.idrc.ca/en/ev-30984-201-1-DO_TOPIC.html
- Langhammer, R.J. (2000). The Nexus Between Trade and the Environment on Greening the WTO. In: H. Siebert (Ed.), *The Economics of International Environmental Problems* (p. 257-262). Tübingen: Mohr Siebeck.
- Larrain, Sara (1997). Free Trade and the Environment: the Chilean model and its Implication for the Asia Pacific. Retrieved March 20, 2006, from Focus Web: <http://www.focusweb.org/publications/1997/Free%20trade%20and%20the%20environment.htm>
- . (2000). The Case of Chile: Dictatorship and Neoliberalism. In Sarah Anderson (Ed.), *Views from the South* (p. 156-159). Oakland: Food First Books.
- Lowenfeld, Andreas F. (2003). *International Economic Law*, Oxford: Oxford University Press, 2003.
- Lukas, Aaron. (June 20, 2000). The WTO Report Card III, Cato Institute (No.10). Retrieved March 5, 2006, from <http://www.freetrade.org/pubs/briefs/tbp-010.pdf>
- Lustig, Nora. (1995). *Coping with Austerity: Poverty and Inequality in Latin America*. Washington, D.C.: Brookings Institution.

- Millennium Ecosystem Assessment. (March 2005). Living Beyond Our Means. Retrieved March 5, 2006, from <http://www.millenniumassessment.org/en/Products.aspx?>
- . (2005). Millennium Ecosystem Assessment Findings Powerpoint. Retrieved March 5, 2006, from <http://www.millenniumassessment.org/en/Presentations.aspx?>
- Murphy, Ewell E. Jr. (September 22, 2004). Charting the Transnational Dimension of Law: U.S.Free Trade Agreements as Benchmarks of Globalization, *Houston Journal of International Law*, 27:1, p. 47-49.
- Office of United States Trade Representative (USTR). (June 6, 2003a). Chile FTA Final Text. Retrieved March 5, 2006, from http://www.ustr.gov/assets/Trade_Agreements/BilateralChile_FTA/Final_Texts/asset_upload_file482_4013.pdf.
- . (June 6, 2003b). United States and Chile Sign Historic Free Trade Agreement. Retrieved March 5, 2006, from http://www.ustr.gov/Document_Library/Press_Releases/2003/June/United_States_Chile_Sign_Historic_FreeTrade_Agreement.html
- . (June 2003c). Final Environment Review of the US-Chile FTA. Retrieved March 8, 2006, from http://www.ustr.gov/assets/Trade_Agreements/Bilateral/Chile_FTA/asset_upload_file411_5109.pdf
- . (June 4, 2004). The U.S.-Chile Free Trade Agreement: An Early Record of Success. Retrieved March 22, 2006, from http://www.ustr.gov/Document_Library/Fact_Sheets/2004/The_USChile_Free_Trade_Agreement_An_Early_Record_of_Success.html
- Organisation for Economic Co-operation and Development (OECD) and United Nations Economic Commission for Latin America and the Caribbean (UNECLAC). (January 24, 2005). Environmental Performance Reviews: Chile: Conclusions and Recommendations.
- . (September 5, 2005). OECD praises Chile's environmental progress but notes need for further action. Retrieved March 6, 2006, from http://www.oecd.org/document/32/0,2340,en_2649_34283_34856224_1_1_1_1,00.html
- Porter, M. E. (1991). America's Green Strategy, *Scientific American*, 264, p. 168.
- Porter, M. E. & van der Linde C. (1995). Toward a New Conception of the Environment-Competitiveness Relationship, *Journal of Economic Perspectives*, 9:4, p. 97-118.
- Public Broadcasting Service (PBS). (2002). Commanding Heights, An Interview with Al Harberger. Retrieved March 5, 2006, from http://www.pbs.org/wgbh/commandingheights/shared/pdf/int_alharberger.pdf.

- Rand Corporation. (n.d). The Evolving Context of Global Environmental Governance. Retrieved March 5, 2006, from http://www.rand.org/scitech/stpi/ourfuture/Newworld/sec7_context.html
- Republic of Chile. (September 29, 2005). Chilean Constitution, Article 19.8. Retrieved March 5, 2006, from <http://www.georgetown.edu/pdba/Constitutions/Chile/chile05.html>
- Resolution in Sight for U.S.-Chile Grape Controversy. (February 4, 1994). *El Mercurio*. Retrieved March 10, 2006, from <http://ssdc.ucsd.edu/news/chip/h94/chip.19940204.html#a1>
- Ricupero, Rubens. (2002). Trade and Environment: Strengthening Complementarities and Reducing Conflicts. In Gary P. Sampson and W. Bradnee Chambers (Eds.), *Trade, Environment, and the Millennium* (p. 29-43). Tokyo: United Nations University Press.
- Rodrik, Dani. (1997). *Has Globalization Gone Too Far?* Washington, DC: Institute for International Economics.
- Rosales, Osvaldo. (2003). Chile-U.S Free Trade Agreement: lessons and best practices. Retrieved March 10, 2006, from SICE: <http://www.sice.oas.org/geograph/north/Rosales.asp>
- Runge, C. Ford. (1994). *Freer Trade, Protected Environment: Balancing Trade Liberalization and Environmental Interests*. New York: Council on Foreign Relations.
- Saito, Kohei. (2001). Yardsticks for Trade and Environment: Economic Analysis of the WTO Panel and the Appellate Body Reports regarding Environment-oriented Trade Measures. Retrieved March 22, 2006, from the Jean Monnet Center at NYU School of Law: <http://www.jeanmonnetprogram.org/papers/01/013701.html#TopOfPage>
- Sampson, Gary P. and Chambers, W. Bradnee. (2002). *Trade, Environment, and the Millennium*. New York: United Nations University Press.
- Shahin, Magda. (2002). Trade and Environment: How Real is the Debate? In Gary P. Sampson and W. Bradnee Chambers (Eds.), *Trade, Environment, and the Millennium* (p. 45-80). Tokyo: United Nations University Press.
- Shafik, N. and Bandyopadhyay, S. (1992) Economic growth and environmental quality: time Series and cross-country evidence. *World Bank Policy Research Working Paper* WPS904.
- Silva, Eduardo. Democracy, Market Economics, and Environmental Policy in Chile. *Journal of Inter-American Studies and World Affairs*, 38:4 (Winter 1996-1997), p. 1-33.

- Silverglade, Bruce. (2000). The WTO Agreement on Sanitary and Phytosanitary Measures – Weakening Food Safety Regulation to Facilitate Trade. Amsterdam, Netherlands: Center for Science in the Public Interest. Retrieved March 22, 2006, from CSPI: http://www.cspinet.org/reports/codex/dutch_wto.html#n_7_
- Steinberg, Richard H. (April 1997). Trade-Environment Negotiations in the EU, NAFTA, and WTO: Regional Trajectories of Rule Development. *The American Journal of International Law*, 91:2, p. 231-267.
- Transantiago. (2005). Retrieved March 10, 2006, from <http://www.transantiago.cl>
- United Nations (UN). (1997a). Earth Summit+5. Retrieved March 5, 2006, from <http://www.un.org/esa/earthsummit/>
- . (1997b). Earth Summit Ends with Few Commitments. Retrieved March 5, 2006, from <http://www.un.org/ecosocdev/geninfo/sustdev/es5final.htm>
- . (2002a). Johannesburg Summit 2002. Retrieved March 5, 2006, from <http://www.un.org/events/wssd/pressreleases/finalrelease.pdf>
- . (2002b). Report of the International Conference on Financing for Development. Retrieved March 5, 2006, from <http://www.un.org/esa/ffd/aconf198-11.doc>.
- United Nations Department of Economic and Social Affairs. Division of Sustainable (UNDESA). (December 15, 2004a). Agenda 21. Preamble 1.1. Retrieved March 5, 2006, from <http://www.un.org/esa/sustdev/documents/agenda21/english/agenda21chapter1.htm>
- . (December 15, 2004b). Agenda 21, Chapter 2. Retrieved March 5, 2006, from <http://www.un.org/esa/sustdev/documents/agenda21/english/agenda21chapter2.htm>
- United Nations Environment Programme (UNEP). (June 16, 1972). Declaration of the United Nations Conference on the Human Environment. Retrieved March 5, 2006, from <http://www.unep.org/Documents.multilingual/Default.asp?DocumentID=97&ArticleID=1503>
- . (June 14, 1992). Rio Declaration on Environment and Development. Retrieved March 5, 2006, from <http://www.unep.org/Documents.multilingual/Default.asp?DocumentID=78&ArticleID=1163>
- . (2005). *Environment and Trade: A Handbook*. Canada: Institute for Sustainable Development. University of Pittsburgh. (n.d.). International Business Ethics: Chile - Chilean Fruit Embargo of 1989. Retrieved March 10, 2006, from <http://www.pitt.edu/~ethics/Chile/case.html>
- U.S. Commercial Service. (2003). Chile: A Reliable Partner for US Business. Retrieved March 5, 2006

- (2005). Water Treatment Equipment and Services. Retrieved March 5, 2006, from <http://www.buyusa.gov/chile/en/132.html>
- (2006a). U.S. Exporter's Guide to the U.S.-Chile Free Trade Agreement, Ch. 1, paragraph 6. Retrieved March 5, 2006, from <http://www.buyusa.gov/chile/en/ftaguide.html>
- (2006b). U.S. Exporter's Guide to the U.S.-Chile Free Trade Agreement. Retrieved March 5, 2006, from <http://www.buyusa.gov/chile/en/95.html#2>
- U.S. Department of State (USDS). (February 14, 2005). U.S.-Chile Joint Commission for Environmental Cooperation, Environmental Cooperation Agreement, 2005-2006 Work Program. Retrieved March 5, 2006, from <http://www.state.gov/g/oes/rls/or/43756.htm>
- U.S. Department of State (USDS). (October 24, 2005). Joint Declaration of 2nd Meeting of US-Chile Free Trade Agreement. Retrieved March 5, 2006, from <http://www.state.gov/g/oes/env/tr/2005/55749.htm>
- Vincent, J.R. (1997) Testing for environmental Kuznets curves within a developing country. *Environment and Development Economics*, 2, p. 417-32.
- Webber, D. J and Allen, Dave O. (2004). The Environmental Kuznet's Curve: Mess or Meaning? Retrieved March 22, 2006, from <http://carecon.org.uk/DPs/0406.pdf>.
- Wikipedia. (January 15, 2006). Chile Under Allende. Retrieved March 5, 2006, from http://en.wikipedia.org/wiki/Chile_under_Allende
- Wofford, Carrie. 2000. A Greener Future at the WTO: The Refinement of WTO Jurisprudence on Environmental Exceptions to the GATT. *Harvard Environmental Law Review*. 24:2, p. 563-92.
- Wold, Chris, Gaines, Sanford, & Block, Greg. (2005). *Trade and the Environment*, Durham, North Carolina: Carolina Academic Press.
- World Bank. (2002). Chile Country Profile. Retrieved March 5, 2006, from <http://web.worldbank.org/WBSITE/EXTERNAL/COUNTRIES/LACEXT/CHILEEXTN/0,,meuPK:325283~pagePK:141132~piPK:141107~theSitePK:325273,00.html>
- World Bank. (2004). Global Environment Facility Program. Retrieved March 5, 2006, from <http://lnweb18.worldbank.org/ESSD/envext.nsf/45ByDocName/WorldBank-GlobalEnvironmentFacility>

- World Economic Forum (WEF). (October 13, 2004). Nordic Countries Lead the Way in the World Economic Forum's 2004 Competitiveness Rankings. Retrieved March 5, 2006, from <http://www.weforum.org/site/homepublic.nsf/Content/NORDIC+COUNTRIES+LEAD+THE+WAY+IN+THE+WORLD+ECONOMIC+FORUM%E2%80%99S+2004+COMPETITIVENESS+RANKINGS>
- World Resources Institute (WRI). (2003). Environmental Governance and Institutions: Chile. Retrieved March 5, 2006, from http://www.earthtrends.wri.org/pdf_library/country_profiles/env_cou_152.pdf.
- World Trade Organization (WTO). (n.dA). Doha Declaration Explained: Trade and environment. Retrieved March 5, 2006, from http://www.wto.org/english/tratop_e/dda_e/dohaexplained_e.htm#environment
- (n.dB). Environment: CTE Agenda Part 1: CTE on: trade rules, environmental agreements and disputes. Retrieved March 5, 2006, from http://www.wto.org/english/tratop_e/envir_e/cte01_e.htm
- (n.dC). Environment: Disputes 4, Mexico etc. versus US: 'tuna-dolphin'. Retrieved March 5, 2006, from http://www.wto.org/english/tratop_e/envir_e/edis04_e.htm
- (n.dD). Environment: Issues in the WTO 3, GATT, Article XX. Retrieved March 5, 2006, from http://www.wto.org/english/tratop_e/envir_e/issu4_e.htm#gatt20
- (n.dE). Environment: Issues in the WTO 4: Relevant WTO provisions: text of 1994 decision. Retrieved March 5, 2006, from http://www.wto.org/english/tratop_e/envir_e/issu5_e.htm
- (n.dF). Environment Backgrounder: Brief History of the Trade and Environment Debate, Trade and Environment During the GATT. Retrieved March 5, 2006, from http://www.wto.org/english/tratop_e/envir_e/envir_backgrnd_e/c1s1_e.htm
- (n.dG). Environment Backgrounder: Parameters of the discussion in the WTO. Retrieved March 5, 2006, from http://www.wto.org/english/tratop_e/envir_e/envir_backgrnd_e/c1s3_e.htm
- (n.dH). Environment Backgrounder: The Doha Mandate on Trade and the Environment, Introduction. Retrieved March 5, 2006, from http://www.wto.org/english/tratop_e/envir_e/envir_backgrnd_e/c2s1_e.htm
- (n.dI). Understanding the WTO: Settling Disputes, A Unique Contribution. Retrieved March 5, 2006, from http://www.wto.org/english/thewto_e/whatis_e/tif_e/disp1_e.htm
- (1986). Legal Texts: General Agreement on Trade and Tariffs. Article 1, Section 1. Retrieved March 5, 2006, from http://www.wto.org/english/docs_e/legal_e/gatt47_01_e.htm#article1

- . (1994). Legal Texts: Uruguay Round Agreement, Marrakesh Agreement Establishing the WTO. Retrieved March 5, 2006, from http://www.wto.org/English/docs_e/legal_e/04-wto_e.htm
- . (November 2001). Doha WTO Ministerial 2001: Ministerial Declaration. Retrieved March 5, 2006, from http://www.wto.org/English/thewto_e/minist_e/min01_e/mindecl_e.htm
- Xepapadeas, A. and A. de Zeeuw. (1999). Environmental Policy and Competitiveness: The Porter Hypothesis and the Composition of Capital. *Journal of Environmental Economics and Management*, 37, p. 165-182.
- Yandle, Bruce, Vijayaraghavan, Maya, & Bhattarai, Madhusudan. (April 2002). Environmental Kuznets Curve: A Primer. *PERC Research Study 02-1*. Retrieved March 5, 2006, from <http://www.perc.org/perc.php?id=688>

BIOGRAPHICAL SKETCH

Meghan Reynolds was born and raised in Weston, Connecticut. She graduated with honors from Hamilton College in 2000 with a Bachelor of Arts in World Politics. She has lived in Santiago, Chile and has traveled extensively throughout Latin America and the Pacific Rim. She returned to Chile in the summer of 2005 to intern with the US Foreign Commercial Service. The idea for this thesis grew out of her experiences with the embassy and Chilean businesses.

Pursuing her interest in business and Latin America, she entered the University of Florida in 2004 to pursue a Master of Arts degree with a concentration in Latin American Studies Business Environment. Upon completion of her master's thesis in May 2006, she will study Portuguese and Brazilian business at the Pontifícia Universidade Católica in Rio de Janeiro. .