

An Assessment of Environmental and Sustainability Provisions in Trade
Agreements

by

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Author's Declaration

I hereby declare that I am the sole author of this thesis. This is a true copy of the thesis, including any required final revisions, as accepted by my examiners.

I understand that my thesis may be made electronically available to the public.

Abstract

Trade agreements have begun to incorporate far reaching, more comprehensive environmental and sustainability provisions, alongside their originally intended trade provisions. This trend which has been adopted in recent trade agreements, can be attributed to several factors ranging from the world's increasing awareness of climate change and our ever-growing strive towards sustainable development, to the WTO's own failure to effectively address environmental and sustainability issues at a multilateral level. The aim of this thesis is to further the understanding of environmental and sustainability provisions, by comparing different country approaches towards including these provisions in their trade agreements, using the Canada-Colombia Free Trade Agreement and the European Union-Caribbean Forum Economic Partnership Agreement as case studies. This comparison helped to demonstrate which country's approach seems to be more effective at triggering change, with the purpose of guiding, informing and transforming future policy. Using a qualitative approach, the findings of the research indicate that a) the development of targeted and innovative sustainability provisions require extensive and comprehensive impact assessments, b) cooperative programs and efforts carried out under trade agreements may be impacted by the level of detail of their impact assessments and their sustainability provisions c) sustainability provisions have the potential to serve as a site of SDG implementation and, d) there is room for the WTO to learn from and implement these approaches to sustainability provisions in its own agreements

Key words: Trade and environment, sustainable development, trade and Sustainable Development Goals, environmental provisions, sustainability provisions

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List of Abbreviations

- ACP** African, Caribbean and Pacific countries
- CCOFTA** Canada – Colombia Free Trade Agreement
- CTE** Committee on Trade and Environment
- EA** Environmental assessment
- EKC** Environmental Kuznets curve
- EPA** Economic partnership agreement
- EU-CARIFORUM EPA** European Union Caribbean Forum Economic Partnership Agreement
- FTA** Free trade agreement
- GATT** General Agreement on Tariffs and Trade
- GDP** Gross domestic product
- IA** Impact assessment
- MDG** Millennium Development Goals
- MEA** Multilateral environmental agreement
- NAAEC** North American Agreement on Environmental Cooperation
- NAFTA** North American Free Trade Agreement
- PHH** Pollution haven hypothesis
- RTA** Regional trade agreement
- SDG** Sustainable Development Goals
- SIA** Sustainability impact assessment
- WTO** World Trade Organisation

Chapter 1 - Introduction

1.1 Introduction

In recent decades, International Trade has become an important driver of economic growth (Singh, 2010) (total world exports for 2015 were valued at \$16 trillion), and governments of different countries are increasingly situating trade as a central pillar in their pursuit of economic growth (U. IISD, 2000; Menyah, Nazlioglu, & Wolde-Rufael, 2014). Concern for the natural environment has also grown, as in the past 60 years the global environmental landscape has changed (Caradonna, 2014). Carbon dioxide emissions have increased four-fold, natural resources have been depleted, ecosystems are being destroyed, and biodiversity has continued to reduce. Economic activity has been proven to contribute to this environmental degradation (Arrow et al., 1995), and trade has exponentially increased this economic activity, sometimes resulting in immense environmental damage (Caviglia-Harris, Chambers, & Kahn, 2009). This has resulted in decades of debates about the effects of trade on the environment (U. IISD, 2000), and the need for a solution to these issues. Scholars come to the trade-environment debate championing different perspectives (Galeotti & Lanza, 2005), and it is important to examine both sides of this argument.

This chapter begins with a brief discussion of the trade-environment debate, and then proceeds with a discussion of the relationship between trade and the Sustainable Development Goals. This is followed by an introduction to environmental provisions, which is the focus of this study. It then concludes with the research aims and questions, and a section that lays out the organisation of the entire thesis.

1.2 The Trade Perspective versus the Environment Perspective

Trade proponents, on the one hand, claim that international trade is a multiplier of wealth for both nations and individuals (Young, 1991). As it has been proven since the last half of the 20th century by highly developed countries (Gopinath, Helpman, & Rogoff, 2014), gains from trade can also be leveraged towards the improvement of human wellbeing. Trade enables countries to specialize in the production of goods in which they have a comparative advantage, i.e. goods they produce better than anybody else (Antweiler, Copeland, & Taylor, 2001), and sell off the surpluses from this production to other countries that are not as efficient at its production (Cherniwchan, Copeland, & Taylor, 2016). Trade helps to increase companies' customer base from a limited domestic market to a global one (Ruggie, 2002), and in turn exposes consumers to a wide variety of goods and services from different countries (Baldwin & Lopez-Gonzalez, 2015). This results in an increase in Gross Domestic Product (GDP) which contributes towards the country's economic growth (Ros, 2013). Finally, trade can also be good for the environment, because with higher national incomes and higher standards of living, there is also a demand for higher levels of environmental quality (Ling, Ahmed, Muhamad, & Shahbaz, 2015), as well as an increased ability for the country to pay for and invest towards environmental conservation and protection efforts (Copeland & Taylor, 2003). The common depiction of this hypothesis is widely known as the Environmental Kuznets Curve (see Chapter 2 for extensive discussion).

Environmentalists, on the other hand, see trade in its current form as bad for the natural environment (Arrow et al., 1995). They believe that trade, by nature, is inherently destructive and does more harm than good for the environment (Goudie, 2013). Trade exponentially increases economic activity, which relies heavily on natural resources (Panayotou, 2016) and

contributes to global greenhouse gas emissions (Caviglia-Harris et al., 2009), among other things. From the beginning of every product's life-cycle to its end, the environment is being impacted; inputs of production (i.e. raw materials like minerals, metals, wood from forests etc.)(Lopez, 1994), as well as the energy used for production are obtained from the natural environment (Kneese, Ayres, & d'Arge, 2015), transportation of finished goods releases pollutants into the atmosphere (Cruz, 2016), and after consumption, the waste products of these goods ends up in the environment (Jambeck et al., 2015), often in forms that take thousands of years to be degraded biologically. In a nutshell, every economic activity is based on the environment (Cruz, 2016), and trade-related economic activity has caused more and more damage over the years. Additionally, the so-called "gains for the environment" only happen in the most ideal of situations (Baek & Kim, 2013). Increased economic activities from trade have sometimes resulted in irreversible environmental damage and loss of biodiversity (Stern, 2004a), with one study showing that as much as 30% of global biodiversity is in the process of being lost due to international trade (Lenzen et al., 2012).

None of these perspectives is entirely wrong - in fact, they further buttress the importance of both trade and environmental objectives. The world, in its current state, cannot do without the economic gains from trade, but humankind also needs a planet to live in, and to pass on to the next generation. Therefore, it has become increasingly important that we find a way to balance out the objectives of trade and environmental protection, and make them mutually supportive of each other.

1.3 Finding the Balance: Trade and Sustainable Development Goals

The recently concluded Sustainable Development Goals Agenda does a good job of embodying the pursuit of balance between trade objectives and environmental protection (Stafford-Smith et al., 2016). *General Assembly resolution 70/1, Transforming our World: the 2030 Agenda for Sustainable Development*, also referred to as the Sustainable Development Goals (SDGs), entails a set of 17 goals (consisting of 169 targets). Their aim is to mobilize global action towards sustainable development over 15 years (2015 – 2030), by ending poverty and hunger; protecting the world from environmental degradation; and fostering prosperous, peaceful, just and inclusive societies. They replace the Millennium Development Goals (MDGs) program, which ended in 2015. The goals are listed below:

Table 1 - Sustainable Development Goals

Goal 1 - No Poverty	End poverty in all its forms everywhere
Goal 2 -Zero Hunger	End hunger, achieve food security and improved nutrition and promote sustainable agriculture
Goal 3 - Good Health and Well-being	Ensure healthy lives and promote well-being for all at all ages
Goal 4 - Quality Education	Ensure inclusive and equitable quality education and promote lifelong learning opportunities for all
Goal 5 - Gender Equality	Achieve gender equality and empower all women and girls
Goal 6 - Clean Water and Sanitation	Ensure availability and sustainable management of water and sanitation for all
Goal 7 - Affordable and Clean Energy	Ensure access to affordable, reliable, sustainable and modern energy for all
Goal 8 - Decent Work and Economic Growth	Promote sustained, inclusive and sustainable economic growth, full and productive employment and decent work for all
Goal 9 - Industry, Innovation and Infrastructure	Build resilient infrastructure, promote inclusive and sustainable industrialization and foster innovation
Goal 10 - Reduced Inequalities	Reduce inequality within and among countries
Goal 11 - Sustainable Cities and Communities	Make cities and human settlements inclusive, safe, resilient and sustainable
Goal 12 - Responsible Consumption and Production	Ensure sustainable consumption and production patterns
Goal 13 - Climate Action	Take urgent action to combat climate change and its impacts
Goal 14 - Life below Water	Conserve and sustainably use the oceans, seas and marine resources for sustainable development
Goal 15 - Life on Land	Protect, restore and promote sustainable use of terrestrial ecosystems
Goal 16 - Peace, Justice and Strong Partnerships	Promote peaceful and inclusive societies for sustainable development
Goal 17 - Partnership for the Goals	Strengthen and revitalize the global partnership for sustainable development

Source: Adapted from www.sustainabledevelopment.un.org

The SDGs reference trade issues and the role that international trade can play in the achievement of these goals. Priority areas for trade-related interventions identified in the SDGs

include, *inter alia*, increasing aid for trade support for developing countries (SDG 8) (Le Blanc, 2015); implementation of the principle of special and differential treatment for developing countries, which are special provisions in the WTO agreements that give developing countries special rights and privileges (SDG 10) (Stafford-Smith et al., 2016); and significantly increasing the exports of developing countries, with a view to doubling the Least Developing Countries' share of global exports by 2020 (SDG 17) (Underdal & Kim, 2017).

Linkages between trade and the SDGs even exist for entire industries like tourism; SDG 8 demands that policies enhance sustainable tourism, which creates jobs and promotes local culture and products, while SDG 12 on sustainable consumption and production patterns highlights the importance of developing and implementing tools to monitor sustainable development impacts for sustainable tourism. Lastly, SDG 14 seeks to increase the economic benefits to small island developing states and least developed countries from the sustainable use of marine resources, including the sustainable management of fisheries, aquaculture and tourism.

The SDGs have shown that trade can be leveraged to play an important role in the world's pursuit of sustainable development, and one of the possible ways to harness the power of trade might be through environmental provisions embedded in recent trade agreements. These recent environmental provisions seem to be deeper and more specific than those present in any World Trade Organisation agreement. This has led to the speculation that they might be a much more effective tool for influencing environmental protection and conservation efforts, than World Trade Organisation agreements or multilateral environmental agreements alone (Jinnah &

Morgera, 2013). Researchers like Barbier & Rauscher (2012) argue that if importing nations want the exporting countries to protect more of their environmental quality, trade interventions might be a good way of achieving it.

1.4 The Rise of Environmental Provisions

Free trade agreements have begun to incorporate far reaching, more prescriptive environmental provisions, alongside their originally intended trade provisions (Jinnah & Morgera, 2013). These changes can be attributed to different factors, ranging from the world's increasing awareness of climate change and our ever-growing striving towards sustainable development (Milewicz, Hollway, Peacock, & Snidal, 2016), to immense pressure from environmental groups for countries to include them in their trade agreements (Colyer, 2011). This trend has been adopted mostly in free trade agreements concluded by the United States of America, the European Union, Canada and New Zealand since the mid-2000s (Meidinger, 2017; Mishra, 2016). Research that studies trade agreements have mostly focused on the negotiation process of the agreements (Colyer, 2004; Lechner, 2016); little research has been carried out on the effects that environmental provisions may have on domestic environmental policy or on the cooperative efforts that have come about as a result of these agreements (Jinnah & Lindsay, 2016). This study aims to fill this gap by examining the relationship that exists between these agreements, their impact assessments and the cooperative efforts that have come out of them.

As promising as environmental provisions may seem, just including them in the text of trade agreements may not be enough to create an avalanche of change. They may also need to be targeted and accompanied by mechanisms of funding, information exchange and capacity building. Studies in existing literature do not extensively address these issues and there is a need

for more research to be carried out in this area (Jinnah & Morgera, 2013; Milewicz et al., 2016). Therefore, this study intends to analyse how important these requirements are.

1.5 Research Aim and Questions

The motivation for this study is the pursuit of innovative ways through which countries can be driven to focus on environmental and social issues alongside their pursuit of trade opportunities and economic growth.

The aim of this thesis is to compare different country approaches towards including environmental provisions in their trade agreements. This comparison will help to demonstrate which country's approach seems to be more effective at triggering positive change, with the purpose of guiding, informing and transforming future policy making into policy that results in targeted, more comprehensive environmental provisions that do more than just sit idly in the pages of a trade agreement.

The thesis intends to answer the following questions;

1. Do the results of *ex-ante* impact assessments of trade agreements influence the content of their environmental provisions?
2. Do the results of *ex-ante* impact assessments and the contents of environmental provisions influence the choice of cooperative efforts between the parties?
3. Which country approach to environmental provisions seems to be more effective at promoting the agenda of sustainable development?

1.6 Thesis Layout and Organisation

This thesis is organised into five chapters;

- **Chapter One – Introduction:** Provides the context and research objectives
- **Chapter Two – Literature Review:** Summarizes the academic literature on the complex relationship between trade and the environment, discusses the role of the World Trade Organisation in the context of this relationship, discusses the different types of trade agreements explored in this study and discusses environmental provisions as a form of trade-environment linkage.
- **Chapter Three – Methodology:** Outlines the case methodology used in this research, describing the data collection and data analysis approach.
- **Chapter Four – Data Analysis & Findings:** Presents the results of the primary document analysis and discusses these findings.
- **Chapter Five – Discussion and Recommendations:** Discusses and compares findings from the trade agreements studied and suggests policy recommendations and areas for further research.

Chapter 2 - Literature Review

2.1 Introduction

In the past 20 years, there has been an exponential increase in the number of regional trade agreements (RTAs) in existence (RTAs here refer to multilateral and bilateral trade agreements, free trade areas and custom unions) (Jinnah & Lindsay, 2016). At the same time, widespread concerns over environmental degradation have grown, and protecting the environment has emerged as a global priority (Goudie, 2013). In this context, the impact of trade on the environment is an issue of growing importance in trade policy (Yoo & Kim, 2015).

This chapter seeks to describe the complex relationship between trade and the environment, by reviewing existing models and frameworks that have been employed in its study. It also outlines the role of the World Trade Organisation in this context by discussing its Committee on Trade and Environment (CTE) and its Dispute Settlement Mechanism, and it then proceeds to a discussion of multilateral environmental agreements. This is followed by a discussion of the different types of trade agreements analysed in this study and a discussion on environmental provisions.

2.2 Trade and the Environment – A Complex Relationship

2.2.1 The Effects of Trade on the Environment

Unsurprisingly, a quick scan of most of the literature on the relationship between trade and the environment will reveal that there are two major schools of thought on the topic. Some scholars argue that freer trade is bad for the environment and there can be no gains from it

(supported by the pollution haven hypothesis), while others believe freer trade leads to higher income which eventually results in improved environmental quality (a hypothesis represented by the environmental Kuznet's curve). These conflicting positions are discussed below, represented by the two theoretical models mentioned above; the Pollution Haven Hypothesis and Environmental Kuznets Curve.

2.2.1.1 Pollution Haven Hypothesis (PHH)

The pollution haven hypothesis posits that countries with weak environmental regulations i.e. pollution havens (Cole, 2004b), will attract polluting industries relocating from countries with more stringent environmental regulations (Eskeland & Harrison, 2003). Developing nations with cheap resources and labor tend to have less stringent environmental regulations (Kearsley & Riddell, 2010), and nations with stricter environmental regulations become more expensive for companies because of the costs associated with meeting these high standards (He, 2006). Consequently, companies that choose to be physically established in foreign countries tend to relocate to the countries with the lowest environmental standards or weakest enforcement (Bu, Liu, Wagner, & Yu, 2013).

Historically, empirical studies of the phenomenon have been hindered by the difficulty of measuring regulatory stringency (Aliyu, 2005; Taylor, 2004) and by the fact that stringency and pollution are determined simultaneously (Kearsley & Riddell, 2010). Early studies based on cross sections of data found no significant effect of regulations on industry locations, while newer studies which employed the use of panels of data to control for unobserved heterogeneity or

which used instrumental variables to account for simultaneity have found statistically significant, reasonably sized effects (Bu et al., 2013).

The pollution haven hypothesis is important in the context of this thesis because it could be one of the factors responsible for the observed differences between the levels of stringency of environmental policies in developing and developed countries. Simply put, developing countries may be intentionally developing lax environmental policies, because they think that it is the best way to attract trade and foreign direct investment (FDI). However, if these countries can be assured of FDI and continuous trade flows even with strict environmental policies, then they just may be convinced to increase the stringency of their policies.

2.2.1.2 Environmental Kuznets Curve (EKC)

One of the most debated models employed in the study of the effects of trade on the environment is the environmental Kuznets curve (EKC). The EKC is a conceptual model that suggests that a country's pollution concentrations rise with development and industrialization up to a turning point (Ling et al., 2015), after which pollution falls again as the country uses its increased affluence to reduce pollution concentrations (Kaika & Zervas, 2013). This model which was developed in the early 1990s by (Grossman & Krueger, 1991) plots the relationship between income and environmental degradation and posits that free trade (which results in economic growth) is the pathway to improvements in a country's environmental quality. This hypothesis was based on the argument that as a country's income increases, its citizens begin to demand for improvements in environmental quality and as a result of trade (Baek, 2015), there is an increased availability of resources to meet these demands (Stern, 2004a). The EKC can be

decomposed into three major effects or mechanisms; the scale, composition and technique effects (Grossman & Krueger, 1991), which are elaborated below. Trade affects the environment through a combination of these three mechanisms, and their effects will vary across different countries (Copeland & Taylor, 2004).

If freer trade results in an increase in economic activities, and the nature of these activities remain unchanged, there will be an increase in environmental degradation. This is known as the scale effect (Kirkpatrick & Scricciu, 2008). An increase in trade translates to an increase in the production of goods and services, an increase in associated services such as transportation and also an increase in domestic consumption of these goods (Colyer, 2011). These result in an increased production of waste that must be disposed of; whether from the direct manufacturing of goods, from its transportation, or from its consumption. Simply put, increasing the scale of economic production will result in environmental degradation, all else being equal (Copeland & Taylor, 2003). While effective policies and regulations can be enacted to mitigate this damage, it is unlikely for a country to put such policies into place (U. IISD, 2000), unless incentives exist for them to do so (Ruggie, 2002). Examples of these incentives could be development aid, market access, increased trade flows and assurances of foreign direct investment.

The composition effect refers to how freer trade changes the composition (i.e. the mix of goods being produced) of a country's production towards goods in which it has a comparative advantage (Kaika & Zervas, 2013). The effect on environmental degradation will depend on the industry in which the country has comparative advantage (Grossman & Krueger, 1991); cleaner industries will result in better environmental quality (Saboori & Sulaiman, 2013), while dirtier industries will result in environmental degradation. Also, different goods and services have

different amounts and types of pollutants associated with their production and consumption (de Vita, Katircioglu, Altinay, Fethi, & Mercan, 2015). Therefore, if a country's mix of goods comprises a large portion of less polluting goods, then it should follow that the environmental impact of producing these goods will be relatively low (Grether, Mathys, & de Melo, 2007), or negligible. However, if the mix of goods comprises a larger portion of more polluting goods, then their production will have a more negative impact on the environment (Ling et al., 2015). The composition effect is the most relevant to the environmental Kuznet's curve and it is the mechanism by which the pollution haven hypothesis affects pollution and environmental degradation (Cole, 2004a) .

Finally, the technique effect refers to the increase in energy efficiency that will arise because of higher income and increased access to cleaner technology and environmentally friendly goods and services (Grossman & Krueger, 1991; Stern, 2004a). If a country increases its production of goods by using cleaner, more energy efficient technologies, the effect of this increase in production on the environment will be reduced (Cherniwchan et al., 2016). However, the technique effect can be negative if the dominant technologies used in the production of goods and services are dirty (i.e. they result in the production of more environmental pollutants) (Apergis, 2016; Baek, 2015). Studies have shown that the choice of clean or dirty technologies may be affected by the environmental policies and regulations that exist in a particular country, as well as availability and price of these technologies (Apergis, 2016; Copeland & Taylor, 2004; Stern, 2004b).

Detractors of the EKC posit that the EKC is not robust enough to adequately model the relationship between trade and the environment (Caviglia-Harris et al., 2009; Khanna &

Plassmann, 2004; Perman & Stern, 2003), as other factors apart from economic growth might also play a key role. In their paper, Copeland & Taylor (2004, p. 15) state that “Our review of both the theoretical and empirical work on the EKC leads us to be skeptical about the existence of a simple and predictable relationship between pollution and per capita income”. In their extensive study of the Environmental Kuznet’s Curve, (Tsurumi & Managi, 2010) conclude that factors like the level of stringency of domestic environmental policies play a key role in how freer trade affects environmental quality. This is where environmental provisions in FTAs might play a significant role; by giving countries an incentive for improving the quality and the stringency of their domestic environmental policies.

There is also evidence to show that global carbon emissions have not followed the conventional inverted U pattern of the EKC (Antal & Van Den Bergh, 2016). In fact, the rate of annual world GDP growth has been shown to be highly correlated with annual increases in atmospheric carbon dioxide concentrations (Jebli, Youssef, & Ozturk, 2016): for developing economies growth has occurred at a higher rate than carbon reductions, while in developed economies carbon intensity mitigation efforts have been too slow to result in any significant changes (Bassetti, Benos, & Karagiannis, 2013; Huang, Lee, & Wu, 2008). It is obvious that if the world chooses to stick to this current model of economic growth, the model of economic growth in which the environment must be damaged by economic activities, there is bound to be trouble in the nearest future. What could possibly be done to escape this dilemma? The answer to this question may lie in the path of green growth (UNEP, 2011).

Conversations and research on the concept of green growth and a green economy continue to increase (Bullard & Müller, 2012), as it promises an irresistible win-win outcome (Hezri &

Hofmeister, 2012). Green growth is defined by UNEP (2011) as growth that results in improved well-being and social equity, while significantly reducing environmental risks and ecological scarcities. It implies that environmental and economic goals can be combined by decoupling environmental pressures from economic output (Hodges, Hall, Palma, & Khachatryan, 2015). Case study research on small-scale green economy experiments provide evidence for the possibility of achieving balance between economic, environmental, social and technological interests (Pitkänen et al., 2016). However, there remains a lot of work to be done: there still exists a large number of policy makers and traditionally trained economists that need to be re-oriented (Auzina & Zvirbule, 2016), policies that support and encourage green growth need to be put into place (Bullard & Müller, 2012), and technological advancements and investments in green economy solutions need to be encouraged among other things (Antal & Van Den Bergh, 2016). Environmental and sustainability provisions in trade agreements may be useful tools for triggering this new kind of growth (Bhat, 2015).

2.2.2 Environment and the World Trade Organisation

The World Trade Organisation, which oversees the world's multilateral trading system, has made some efforts to address this complex relationship that exists between trade and the environment.

The General Agreement on Tariffs and Trade or GATT (whose origin can be traced to a larger agreement called the International Trade Organisation) was established in 1947. The GATT evolved to become the World Trade Organisation in 1995 at the end of the Uruguay Round, which was the 8th round of multilateral trade negotiations conducted within the framework of GATT. The World Trade Organisation is the only international organisation that deals with the global

rules of trade between nations. Its main function is to make sure that trade between nations is as smooth and as hitch-free as possible. Even though the WTO claims that sustainable development and environmental protection are fundamental goals of the organisation (Cosbey, 2009), there still exists some discontent surrounding the WTO's ability to sufficiently address environmental issues (Sen, 2014). The WTO, has been involved in environmental issues through its Dispute Settlement Mechanism and its Committee on Trade and Environment (CTE).

2.2.2.1 Dispute Settlement in the WTO - Environmental Issues

The WTO's Dispute Settlement Mechanism has been cited as the most visible site of trade-environment linkage in the organisation (Jinnah, 2010; McCormick, 2006). This is because some of the most notable WTO cases have involved environmentally related issues (Kelly, 2003). The rulings on each of these cases, when viewed through the lens of environmental governance, casts some doubt on the WTO's commitment to environmental protection.

While the WTO was still known as GATT, there were six environmentally related cases brought before the dispute settlement body; *United States-Prohibition of Imports of Tuna and Tuna Products from Canada*, *Canada-Measures Affecting Exports of Unprocessed Herring and Salmon*, *Thailand-Restrictions on Importation of and Internal Taxes on Cigarettes*, *United States-Restrictions on Imports of Tuna*, *United States-Restrictions on Imports of Tuna II* and *United States-Taxes Affecting Imported Automobiles*. Even though none of the rulings on the cases challenged the environmental objectives of the governments concerned, they all found that the respective trade restrictions were either discriminatory in one way, or unnecessarily trade restrictive means for achieving their environmental goals.

Another popular case, brought before the WTO after 1995, was the *US-Shrimp-Turtle* case (Chimni, 2000). In May 1996, the US banned the imports of shrimp and shrimp products from countries that do not require their commercial shrimp trawlers to use Turtle-Excluder devices (Ahn, 1998). The US Endangered Species Act of 1973 lists the five species of sea turtles that occur in US waters as endangered and prohibits their “take” within the US, in its territorial sea and the high seas (Chang, 2000). The ban meant that countries which had any of the five species of sea turtles within their jurisdiction, and harvested shrimp with mechanical means, had to enforce new fishing regulations on their fishers if they wanted to be certified to export shrimp products to the US (Chimni, 2000). In January 1997, India, Malaysia, Thailand and Pakistan as a group brought this issue before the WTO dispute settlement body. The WTO ruled against the US stating that “... *the US lost the case, not because it sought to protect the environment but because it discriminated between WTO members. It provided countries in the western hemisphere (Caribbean and Pacific countries) technical and financial assistance and longer transition periods for their fishermen to start using turtle-excluder devices. It did not give the same advantages, however, to the four Asian countries (India, Malaysia, Pakistan and Thailand) that filed the complaint with the WTO.*” (Sakmar, 1999, p. 12)

Some scholars have expressed doubt over “discrimination” being the real reason why the WTOs dispute settlement body has repeatedly sided against environmental objectives (Ahn, 1998; Baver, 2011; Kelemen, 2001). They claim that the WTO is first and foremost an organisation that was established to facilitate freer trade among countries, and any issue that poses a threat to this objective is not deemed as important.

2.2.2.2 Committee on Trade and Environment (CTE)

The WTO's Committee on Trade and Environment was established by the 1994 Ministerial Decision on Trade and Environment. Its mandate is to identify and understand the complex relationship that exists between trade and the environment, in order to promote sustainable development (Woody, 1995). The CTE has an agenda of 10 items for discussion:

1. The relationship between trade rules and trade measures used for environmental purposes, including those in MEAs.
2. The relationship between trade rules and environmental policies with trade impacts.
3. a) The relationship between trade rules and environmental charges and taxes.
b) The relationship between trade rules and environmental requirements for products, including packaging, labelling and recycling standards and regulations.
4. Trade rules on the transparency (that is, full and timely disclosure) of trade measures used for environmental purposes, and of environmental policies with trade impacts.
5. The relationship between the dispute settlement mechanisms of the WTO and those of MEAs.
6. The potential for environmental measures to impede access to markets for developing country exports, and the potential environmental benefits of removing trade restrictions and distortions.
7. The issue of the export of domestically prohibited goods.
8. The relationship between the environment and the Agreement on Trade-Related Aspects of Intellectual Property Rights (TRIPS).
9. The relationship between the environment and trade in services.
10. WTO's relations with other organizations, both non-governmental and inter-governmental.

(U. IISD, 2000)

In terms of its mandate and institutional setup, the CTE is strong in some respects, but weak in others. It is strong in the sense that it reports to the General Council, which is one of the highest decision-making bodies of the WTO (the General Council is second only to the WTO's Ministerial Conference) (Vogel, 2000). It is also strong because its mandate is to explore the trade and environment relationship in relation to all areas of WTO rules (Hammeren, 2014). However, it is weak in that, unlike certain other committees of the WTO, it cannot alter any WTO Agreement (Najam, 2007).

Any change of rules can only be proposed by the CTE to the General Council, and it is up to the Council to decide what to do with a proposal. However, since its establishment, the CTE has not recommended any change to the rules of the multilateral trading system (Crump & Druckman, 2016). Rather, the CTE believes that current WTO laws provide sufficient scope for the protection of the environment (Nakagawa, 2003; Vogel, 2000), explicitly referring to the Sanitary and Phytosanitary Measures (SPS) Agreement and the Technical Barriers to Trade (TBT) Agreement. The committee believes that trade measures are often not ideal as a means to combat cross-border or global environmental problems because they are neither the most appropriate nor the most effective instrument (Hammeren, 2014). Deliberations in the CTE have shown that the preferred strategy towards global environmental problems is cooperative multilateral action under Multilateral Environmental Agreements (Nakagawa, 2003), rather than unilateral measures taken by member states (Khalilian, 2009)

2.2.3 Trade and Multilateral Environmental Agreements

Ever since the 1972 UN Conference on the Human Environment (or the Stockholm Conference), the number of Multilateral Environmental Agreements (MEAs) in existence have

exponentially increased. There are over 200 MEAs in existence, MEAs being defined as International Environmental agreements between more than two countries (Chambers, 2008). There are six MEAs which are often identified in the WTO as relevant to international trade and trade negotiations (Sandler, 2017). These six MEAs are also often found within the text or in the annexes of Trade agreements (Susskind & Ali, 2014); they are the *Convention on International Trade in Endangered Species of Wild Fauna and Flora (CITES)*, the *Montreal Protocol on Substances that Deplete the Ozone Layer*, the *Basel Convention on the Control of Transboundary Movements of Hazardous Wastes and their Disposal*, the *Cartagena Protocol on Biosafety*, the *Rotterdam Convention on the Prior Informed Consent Procedure for Certain Hazardous Chemicals and Pesticides in International Trade*, and the *Stockholm Convention on Persistent Organic Pollutants*.

MEAs provide a framework for collectively addressing environmental problems based on policy consensus and scientific findings (Kim & Bosselmann, 2013). As environmental challenges become increasingly complex, MEAs provide a comprehensive approach to deal with those challenges effectively and equitably (Mee, 2005). One of the most important principles of MEAs is the recognition that international cooperation is preferable to unilateral action when addressing global environmental challenges (IISD & UNEP, 2014). MEAs also acknowledge that any global environmental action must consider the different contributions of countries to the causes of environmental problems and their capacity to resolve them (Honkonen, 2016; Sandler, 2017). More specifically, MEAs help to regulate trade in endangered species and animals (CITES), as well as trade in environmentally hazardous products (Rotterdam Convention). They also help to phase out harmful substances (Montreal Protocol), among other things. Finally, MEAs, unlike

many other treaties, are driven and updated by the latest scientific thinking and discoveries (Clémençon, 2012), and generally have the widespread support of the international community

Developing countries often express the strongest resistance to MEAs; they tend to argue that MEAs will have a negative economic impact through restricting market access (Kuijper, 2010), and that any environmental and developmental benefits will be outweighed by the costs of compliance. MEAs can, however, address developing country concerns by offering facilities through which these countries are given implementation and financial assistance, technology transfer and other incentives to ease the difficulty of transitioning and ratifying MEA policies (George, 2013;).

Even though ratifying and being in compliance with MEAs have a number of potential advantages, they are still mostly seen as not being very effective (Mohrenberg, Koubi, Bernauer, & CIS, 2016). Reasons for this relative lack of effectiveness of MEAs include the fact that they have relatively low self-enforcing power (Cowie, Schneider, & Montanarella, 2007), weak inspection and sanction programs (Liu et al., 2016), and problems of scale and applicability to domestic environmental problems (Chambers, 2008).

If MEAs in general are to be effective, they need to learn from the successes of the Montreal Protocol (Zhao & Ortolano, 2003). One of the most successful MEAs to date, the Montreal Protocol on Substances that deplete the Ozone layer entered into force in 1989. Its aim was to prevent the earth's atmosphere from the harmful effects of chlorofluorocarbon emissions. It was highly successful because it was framed as a straightforward, achievable goal whose focus was to ban a few harmful chemicals (Raubenheimer & McIlgorm, 2017). Another

reason for its success was the establishment of a multilateral fund which provided financial support to developing countries and gave them an incentive to make strong commitments towards reducing their CFC emissions (Chipperfield et al., 2015). These developing countries were also provided with technical support to help them with the transition from CFC to better environmentally friendly technologies (Chambers, 2008; Zhao & Ortolano, 2003). It also had support from the scientific community, environmental groups and the private sector.

2.3 Free Trade Agreements, Environmental Partnership Agreements, and Environmental Provisions

2.3.1 Free Trade Agreements versus Economic Partnership Agreements

This study analyses two types of agreements; free trade agreements (Canada-Colombia Free Trade Agreement) and economic partnership agreements (European Union-Caribbean Forum Economic Partnership Agreement). This section briefly discusses and compares both.

Free trade agreements (FTAs), as the name implies, are legally binding agreements between two (bilateral) or more (multilateral) countries which determine the rules of trade between them. They determine duties, taxes, tariffs, quotas, and are generally designed to reduce trade barriers between countries (J. N. Bhagwati & Panagariya, 1996). They also cover rules on intellectual property rights, competition policy and government procurement procedures, as well as non-trade measures like environmental and labour provisions. Critics of FTAs cite power dynamics and the imbalance of bargaining power that exists during FTA negotiations as a major problem (Kohl, 2014). There is a tendency for smaller and less powerful economies to compromise more than their more powerful counterpart, which results in FTAs that favour one economy more than the other (Baier & Bergstrand, 2007). Critics also claim that

multilateral trading systems i.e. the WTO, are more effective mechanisms for trade liberalisation than trade agreements between a few countries (Hayakawa, Kim, & Yoshimi, 2017).

Economic partnership agreements (EPAs) on the other hand, are a specialised form of international agreements referred to as “trade and development” agreements (Stevens, 2006). They are negotiated between the European Union and the African, Caribbean and Pacific group of countries (ACP group), who are engaged in a regional economic integration process. The ACP group is divided into six regions and the EU has negotiated or is in the process of negotiating EPAs with each of these regions. EPAs aim to promote trade between the EU and ACP countries, and use the economic gains from liberalised trade to contribute towards sustainable development and poverty reduction (Milner, Morrissey, & McKay, 2005). They also aim to contribute towards the diversification of ACP country exports (Carbone & Orbie, 2014), and shift their reliance from commodities like crude oil, to services like tourism (Stevens, 2006). Detractors of the EPA structure worry that the loss of tariff revenue as a result of the agreement may affect the economies of ACP countries (Keijzer & Bartels, 2017). They are also concerned that the EPAs will expose vulnerable, infant industries in some of these countries to the harsh realities of global competition (Pitschas, 2014), which is something they may not be able to survive in the long run. It may be true that the ACP countries will lose some potential tariff revenue, but the economic gains from open access to European markets are a worthy trade-off. As for the exposure of infant industries, the world has become increasingly globalised, and through exposure to these globalised markets, businesses that operate in these so-called infant industries could gain knowledge and experience that will help them thrive.

As mentioned above, these agreements contain provisions that range from trade-related measures like tariff rates to non-trade measures like environmental and labour provisions. The next section discusses environmental provisions which are the main focus of this thesis.

2.3.2 Environmental Provisions

A provision can be defined as a legal clause or condition contained within a contract that requires parties to the contract to perform a particular requirement. Environmental provisions are simply provisions present in trade agreements (or side agreements linked to an FTA) that deal with environmental issues. The first FTA that introduced the concept of environmental provisions was the North American Free Trade Agreement or NAFTA (which is an agreement between the USA, Canada and Mexico). It contained weak environmental provisions, in a side agreement known as the North American Agreement on Environmental Cooperation (Jinnah & Morgera, 2013). In contrast with NAFTA, the US-Peru Preferential Trade Agreement in 2009 contains one of the most prescriptive forms of environmental provisions (Levy, 2009). It goes as far as requiring the development of new domestic environmental policies and institutions (Bourgeois, Dawar, & Evenett, 2007), and leverages trade sanctions in ensuring compliance with the environmental rules of the trade agreement (Colyer, 2012). At first, it seems counterintuitive that the instruments of free trade are now being considered as a vehicle for improving environmental quality in partner states, but then again, maybe not. This is because FTAs have the monitoring power and regulatory structure that MEAs lack as discussed earlier. It may also be an indication that countries are now more willing to value environmental protection in their pursuits of economic growth.

The inclusion of environmental provisions in FTAs by countries like the US, Canada and the EU can be attributed, in part, to the WTO's own failure to effectively address environmental issues at a multilateral level (Jinnah & Lindsay, 2016). It can also be attributed to the fact that countries are increasingly seeking avenues through which cooperative solutions to environmental challenges can be developed (Segger, 2009)(see Appendix 1 for discussion on different developed country motivations for including environmental provisions in trade agreements).

Although critics of environmental provisions and other “non-trade related provisions” (like labor standards and intellectual property rights) argue that these provisions are just another way through which hegemonic states impose their norms and policies on weaker states (J. Bhagwati, 2008), the impact assessments carried out during the negotiations of these FTAs may prove otherwise (Jinnah & Morgera, 2013). Impact assessments of trade agreements are usually carried out either before or during the negotiations (*ex ante*). Some countries also conduct them after the agreement has been concluded and some experience has been gained (*ex post*). One of the aims of this thesis is to determine whether these impact assessments have any influence on the environmental provisions included in the trade agreements.

The next chapter describes the methodological approach for the thesis, describing the data collection and data analysis process.

Chapter 3 - Methodology

3.1 Introduction

This thesis employs a qualitative approach in the study of whether environmental provisions in trade agreements have been able to trigger any positive changes in partner countries (especially developing countries). The goal of qualitative research is to address research objectives and answer research questions through the understanding of a holistic view of the social phenomenon (Creswell, 2013). As a result of the nature of the research questions, the study was carried out using a comparative research methodology through a desk review of existing literature and primary documents.

3.2 Research Framework and Design

A major objective of this thesis is to compare different developed country approaches towards including environmental provisions in their trade agreements. This comparison will help to demonstrate which country approach seems to be more effective at triggering meaningful change, with the purpose of guiding, informing and transforming future policy making into policy that result in targeted, more comprehensive environmental provisions that do more than just sit idly in the pages of a trade agreement. To achieve this aim, the method of comparative research was employed.

Comparative research, as the name implies, can be defined as a method whose aim is to make comparisons across groups, cultures or countries (Teichler, 2014). Its underlying goal is to explore for similarity and variance among the units of analysis. Comparisons do not only uncover differences between entities, but also reveal unique aspects of an entity's characteristics that may have been impossible to detect if not for its' comparison with another entity (Esser &

Hanitzsch, 2013). Texts on this methodology started to appear in the late nineteenth century, but it was not until after World War II that it became extremely popular. The 1950s were a period in which several significant internationally comparative projects were carried out; a good example is the UNESCO Tensions project (1949-1953) headed by Otto Klineberg, in which large scale, cross-national comparative studies were carried out (Yom, 2015) . Cross-national comparative studies involve the analysis of an event or process that takes place within a country, while comparing the way that event or process takes place in another country (Della Porta et al., 2015). Kohn (1989) recognises four types of cross-national comparative research based on the intent of the studies:

- The **object** of the study; that is the researcher's interest lies primarily in the countries studied
- The **context** of the study; the research is mostly concerned with testing the generality of research results concerning social phenomena in two or more countries
- The **unit** of analysis; the researcher is primarily interested in investigating how social phenomena are systematically related to characteristics of the countries being researched
- **Trans-national**; the researcher treats countries as components of a larger international system

Using the environmental provisions of FTAs from developed countries as units of analysis, this study employs cross-national comparative research methodology. As mentioned above, this comparative study was carried out through analysis of existing primary documents. Primary document analysis is the process of systematically studying original sources (artifacts, documents, diaries, manuscripts, recordings etc.).

3.3 Agreement Selection and Primary Documents Analyses

The agreements studied were Canadian and European Union agreements, which were selected because they have been cited as containing environmental provisions that have become increasingly prescriptive with time (Jinnah & Morgera, 2013). They were also selected because they represent different approaches towards including environmental provisions in trade agreements, and to achieve the comparison aim of this thesis, two different approaches had to be selected. This study focuses on cooperative efforts in developing countries because the flow of these efforts and programs, as well as the funds associated with them, have been observed to move in a unidirectional manner i.e. from developed countries to developing countries. It also focuses on developing countries because one of the aims of the study is to identify ways that developing countries can be motivated to focus on environmental and social issues alongside their pursuit of trade opportunities and economic growth.

The following criteria were employed in the selection of trade agreements for analyses:

- FTA must be between developed and developing countries
- One of the agreements must involve Canada, to make this thesis relevant for Canadian trade policy.
- Environmental Provisions must have an entire chapter or side agreement dedicated to them.
- Little to no research carried out on them, so as to make an original contribution.
- FTA must have been in existence for at least 9 or 10 years
- Primary documents must be available and accessible.

Agreement Selection

Canada has 15 free trade agreements in force. The selection criteria listed above were applied to these FTAs and the Canada-Colombia FTA (2008) was chosen for analysis.

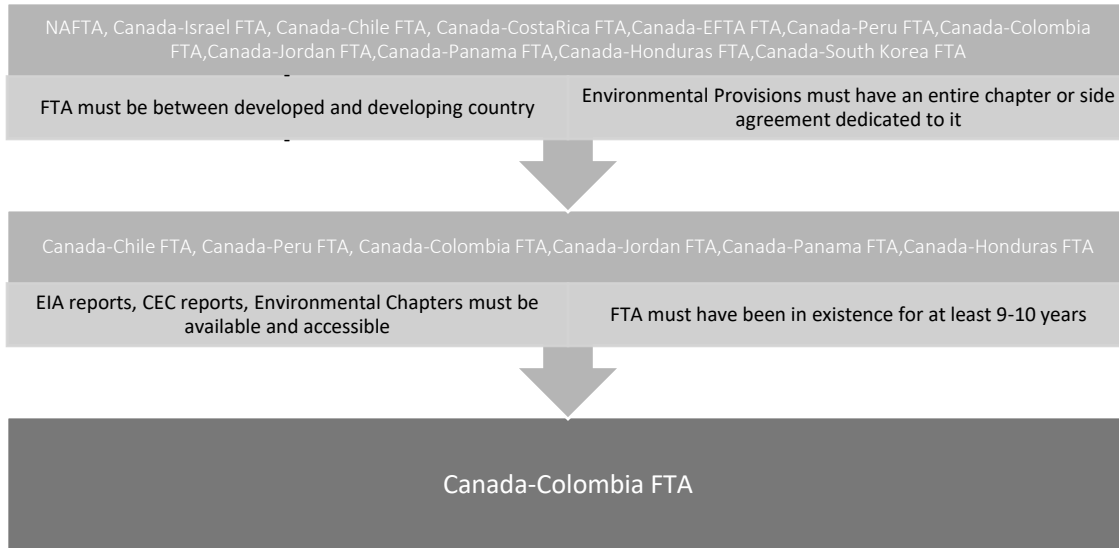


Figure 1 - Selection Process for Canadian FTAs

The EU has entered into Trade Agreements with many countries and is in the process of signing on to new agreements. The selection criteria listed above was applied to these agreements and three Trade Agreements met all the criteria. The EU-CARIFORUM EPA was selected primarily because it was signed in the same year as the Canada-Colombia FTA.

Primary Document Analysis

The steps in the data collection and analysis process are enumerated below:

First, the impact assessment (IA) report was retrieved from the government trade website (Canada - www.international.gc.ca/trade; EU - ec.europa.eu). It was then read and comprehensively studied. This enabled the researcher to identify the issues of concern which

were assessed and studied during the IA process. As this was the starting point of the analysis, these issues served as the focal point for the subsequent analysis carried out on the rest of the documents.

Second, the full text of the trade/partnership agreements was retrieved from the government trade website, read and studied for themes and references to the issues identified in step 1. For the Canadian agreement, the side agreement on the environment was also retrieved and analysed.

The third step was to systematically search for evidence of cooperative efforts between the two countries that were taken to prevent, reduce or tackle the issues discovered in steps 1 and 2 above. Using specific keywords and terms, annual reports, NGO reports, trade progress reports and news articles were comprehensively studied for evidence of these targeted actions.

The findings from steps 1 to 3 were then discussed and organised into a summary table following the template below.

Table 2 - Summary Table Template

Issue Area	Environmental / Sustainability Impact Assessment	Environmental/ Sustainability Provisions	Targeted Action
This section states the environmental issue	This section indicates whether the EIA /SIA studies the impact of the FTA/EPA on the issue, and if yes, summarizes its findings	This section indicates whether the issue was addressed in the environmental/ sustainability chapter, and indicates the location	This section indicates whether there was any action carried out to mitigate the issue.

Chapter Four - Data Analysis and Findings

4.1 Introduction

This chapter will undertake an examination of primary trade agreement documents by describing and analysing their contents. The results of this analysis will help to determine if the results of impact assessments actually influence the content of environmental provisions and the choice of cooperative efforts that occur between parties. The chapter is divided into two major sections by agreement. The Canada-Colombia Free Trade Agreement is discussed first, then the EU-Caribbean Forum Economic Partnership Agreement is discussed next. Each section is identical in its organisation, which allows for a uniform approach during the analysis process outlined below.

- First, a brief introduction of the agreement, listing the countries involved and the goods that are traded between them.
- Second is a content analysis of the impact assessment report (*Canada: Environmental Impact Assessment; EU: Sustainability Impact Assessment*). It begins with a discussion of each country's approach and methodology, and then delves into the issues discussed in the report. The issues identified in this section will serve as the focal point of each study.
- Third is a discussion of the environmental (Canada) or sustainability (EU) provisions present in the agreement. The environmental provisions discussed in this section are those that pertain to the issues discussed in the second step above.
- The fourth section discusses any cooperative efforts that have been undertaken between both parties. It gives the name of the project, its duration, and where available the budget. The

cooperative efforts identified in this sub-section also pertain to the focal issues identified in step 2 above.

- The final sub-section is a brief discussion of the findings from the analysis, accompanied by a table that summarizes the findings for each agreement. This table contains headings that correspond to each sub-section, to allow for uniformity and consistency.

4.2 Canada-Colombia Free Trade Agreement (CCOFTA)

The Canada-Colombia Free Trade Agreement (CCOFTA), which was signed on November 21, 2008, is a bilateral agreement between Canada and Colombia. Exploratory discussions for this agreement began in August 2002, with official negotiations commencing in June 2007 (DFAIT, 2008). This FTA contains an environment chapter (Chapter Seventeen), as well as a mutually supportive side agreement, *the Agreement on the Environment between Canada and the Republic of Colombia*, which sets out the parties' shared obligations.

Canada's major exports to Colombia include cereals (mainly wheat), motor vehicles, machinery, vegetables (mainly lentils), paper and paperboard, fertilizers and meat products, while Colombia's main exports to Canada are mineral fuels and oils, coffee, tea and spices, live trees and plants (mainly cut flowers), fruits and nuts and plastics.

4.2.1 Environmental Assessment of the CCOFTA

The *1999 Cabinet Directive on Environmental Assessment of Policy, Plan and Program Proposals* requires all Canadian departments and agencies to consider both positive and negative environmental impacts of new policies and programs before implementing them. This is the official motivation behind environmental assessments of trade negotiations in Canada, which focuses on the possible environmental impacts of a new free trade agreement in Canada alone,

and not in the partner country. They are carried out *ex-ante* (i.e. before or during the negotiation process) by members of an environmental assessment (EA) committee, established solely for the trade negotiation in progress. The EA committee consists of government officials from different agencies and departments, who contribute to the EA process in different capacities. The EA begins with a Notice of Intent, which is usually issued at the same time as the announcement of trade negotiations. This notice is used to publicize the government's intention to carry out an EA for the trade negotiation. There are three distinct phases of the EA; Initial EA phase, Draft EA phase and Final EA phase.

-Initial EA phase: This is basically a scoping phase. It is the phase in which all the main environmental issues that could arise as a result of the proposed negotiations are identified. It does not go into details on issues, as this is reserved for the next phase. An initial EA report is usually produced at the end of this phase.

-Draft EA phase: The main phase of the EA process, it elaborates on the Initial EA's findings. The environmental impacts outlined in the Initial EA phase are thoroughly assessed and examined. However, it should be noted that if an Initial EA finds that the proposed FTA will not have any significant environmental impacts in Canada, the Draft EA phase is skipped. This was the case for the Canada-Colombia FTA. A Draft EA report, which is available to the public, is also produced at the end of this phase.

-Final EA phase: This is carried out after the FTA negotiations have been completed. It is a rounding-up phase, and the report produced gives details on how the negotiation process was affected by the results of the first two EA phases. It also proffers mitigation and prevention

options for the environmental impacts examined. The Final EA report is also available to the general public.

The CCOFTA EA process took place between June 2007 and November 2008. As the Draft EA phase was skipped, there was only an Initial EA and a Final EA. No public comments were received during the EA process, even though the reports were made publicly available on the Government of Canada website (DFAIT, 2008). The following section discusses the environmental issues that were explored during the CCOFTA EA process. These issues serve as the starting point of the CCOFTA study, and will also serve as its focal point. As discussed above, the EA mostly explored the environmental impacts of the CCOFTA in Canada, with brief mentions of these impacts in Colombia.

-Climate Change & Greenhouse Gas Emissions: Greenhouse gases contribute to climate change, which is an important global environmental problem. The CCOFTA will not significantly increase Canada's overall trade volume, therefore, its impact on Canada's greenhouse gas emissions will be negligible. Colombia, on the other hand, is not a major GHG emitter. Nevertheless, as all countries on the planet are vulnerable to the impacts of climate change, there is a need for increased investments in climate change adaptation measures and education (DFAIT, 2008) .

-Nutrient Loads in Rural Watersheds: In rural areas, agricultural activities put surface and groundwater at risk because they result in an increase in the amount of nutrients (nitrogen and phosphorus) found in them, and are also responsible for increased levels of pesticides and pathogens. The major agricultural export from Canada to Colombia is wheat, and since less than

5% of this wheat is exported to Colombia, any reduction or elimination of tariffs as a result of the CCOFTA will not have a significant effect on the volume of wheat produced (DFAIT, 2008).

4.2.2 Environmental Provisions in the CCOFTA

The Canada-Colombia FTA contained an environmental chapter (Chapter 17) which was very brief, as the main environmental provisions are contained in the side *Agreement on the Environment*. This chapter contains four sections;

- An “Affirmations” section (Article 1701) which recognizes the parties’ sovereign rights and responsibilities to conserve its environment, and the need to implement the CCOFTA in a manner consistent with environmental protection standards (CCOFTA, 2008).
- A “Non-derogation” section (Article 1702) which states that parties must not weaken their environmental laws to encourage trade and investments (CCOFTA, 2008)
- An “Agreement on Environment” section (Article 1703) which briefly outlines and summarises the content of the side environmental agreement (CCOFTA, 2008) and
- A “Relationship between Agreements” section (Article 1704) which states that the free trade agreement and its side agreement on the environment are mutually supportive of each other (CCOFTA, 2008).

The side *Agreement on the Environment between Canada and the Republic of Colombia* was broader, as it contained the main environmental provisions. There were no provisions that directly addressed the two environmental issues discussed during the environmental impact assessment i.e. climate change and greenhouse gas emissions or nutrient loads in rural watersheds. Instead, most of the environmental provisions found in the agreement were of a

common and general nature (see Appendix 2 for a discussion on these common provisions).

These provisions commit both parties to:

- Ensure that their laws and policies provide for high levels of environmental protection;
- Effectively enforce their environmental laws;
- Not relax their environmental laws in order to encourage trade or investment;
- Ensure that procedures for environmental impact assessment are maintained;
- Promote trade and investment in environmental goods and services;
- Ensure that proceedings are available to provide sanctions or remedies for violations of their environmental laws;
- Promote public awareness of environmental laws and policies;
- Promote the conservation and sustainable use of biological diversity;
- Respect, preserve and maintain traditional knowledge, innovations and practices of indigenous and local communities; and
- Encourage voluntary best practices of corporate social responsibility

4.2.3 Targeted Action under the CCOFTA

There were a number of cooperative efforts undertaken between Canada and Colombia under the CCOFTA. These projects, summarised in the table below, were mostly climate change related (For detailed descriptions of each project, see Appendix 4)

Table 3- Cooperative efforts under CCOFTA

Project Name	Issue	Location	Duration	Budget(\$)
Climate Change Resilience in Protected Areas	Climate change	Colombia	2012 - 2013	850,000
Climate Change Adaptation Educational Program	Climate change	Colombia	2012 - 2013	265,241
Development of Nationally Appropriate Mitigation Actions in the Waste and Landfill Sector (Technical Assistance)	Climate change	Colombia	2011 - 2013	Not available
Pollutant Release and Transfer Registries (PRTR) workshop	Climate change	Colombia	2015	12,500
Reduction of Short Lived Climate Pollutants (SLCP) from Oil & Gas Operations	Climate change	Colombia	2014 - 2015	400,000

4.2.4 Summary of Findings and Discussion

Table 4 - Summary of Findings for CCOFTA

Issue Area	Environmental Impact Assessment	Environmental Provisions	Targeted Action
Climate Change & Greenhouse Gas Emissions	The CCOFTA will not significantly increase Canada's GHG emissions, but there is need for climate change adaptation programs in Colombia	No environmental provisions	<ul style="list-style-type: none"> • Climate Change Resilience in Protected Areas • Climate Change Adaptation Educational Program • Development of Nationally Appropriate Mitigation Actions in the Waste and Landfill Sector (Technical Assistance) • Pollutants Release and Transfer Registries (PRTR) Workshop • Reduction of Short Lived Climate Pollutant (SCLP) from Oil & Gas Operations
Nutrient Loads in Rural Watersheds	The CCOFTA will not result in an increase in agricultural activities in Canada, and will not contribute to nutrient overload in rural watersheds	No environmental provisions	No targeted action

Canada's environmental impact assessment of trade agreements' process does not require government officials to investigate potential environmental impacts of the agreement on their partner country. Therefore, it is not surprising that the environmental impact assessment of the CCOFTA focused mainly on the impacts of the new trade agreement on Canada's environment. The issues highlighted in the impact assessment reports were climate change and greenhouse gas emissions as well as nutrient loads in rural watersheds. These issues were not discussed in detail, because it was discovered that the trade agreement will not increase Canada's economic activity to the extent of worsening these issues. It was implied, however, that Colombia's natural environment may bear the brunt of the new trade agreement. One only wonders why this was not seen as an opportunity to then focus on the environmental impacts of the new trade agreement in Colombia.

As mentioned earlier, the issues identified in the environmental impact assessment report served as the focal point of the study. While studying the environmental provisions present in the CCOFTA, the researcher searched for provisions which directly addressed these afore-mentioned issues, and no provision was found. There was no evidence to suggest that the results of the impact assessment fed into the choice of environmental provisions included in the agreement, rather the provisions present in the agreement seemed like they came from a general template for environmental provisions. The projects and cooperative efforts that have been carried out under the CCOFTA have mostly been climate change-related projects. These projects have ranged from climate change adaptation and educational programs, to workshops on Pollutant Release and Transfer Registries. Climate change was one of the issues explored during the environmental impact assessment of the CCOFTA, and since these projects are climate change-related, one

could infer that in this instance, the result of the impact assessment influenced the choice of projects and cooperative efforts carried out between Canada and Colombia. It is also possible that the reason for this singular focus on climate change related projects is the eclipsing nature of climate change issues. The world has become increasingly focused on climate change and its impacts, and there is a tendency for the multitude of other environmental problems to be shoved to the back burner. It is also worth mentioning an annex of the CCOFTA's environmental agreement, titled "Priority Areas for Cooperation" which lists a number of priority areas identified by the Government of Colombia for consideration in the choice of environmental cooperative efforts. These areas are listed below.

- (a) Environmental risk management;
- (b) Integral water management;
- (c) Conservation in situ and ex situ of biodiversity;
- (d) Sustainable use of natural resources;
- (e) Restoration of degraded ecosystems;
- (f) Promotion of the production and trade of environmental-friendly goods and services;
- (g) Air, soil and water pollution prevention management and control;
- (h) Integrated solid waste management;
- (i) Integrated chemical contaminants and hazardous wastes management;

- (j) Systematizing of environmental information;
- (k) Environmental citizenship and education;
- (l) National institutional strengthening, including:
 - (i) Surveillance program of living natural resources;
 - (ii) Information system of living natural resources;
 - (iii) Information system on the environment;
 - (iv) Surveillance program for the monitoring and tracking of genetic resources; and
 - (v) Monitoring and alert system of genetically modified organisms;
- (m) Harmonization and rationalization of the knowledge and information management
- (n) Forests management; and
- (o) Use and development of clean technologies.

(DFAIT, 2008)

4.3 EU-Caribbean Forum Economic Partnership Agreement (EU-CARIFORUM EPA)

The EU-Caribbean Forum Economic Partnership Agreement (EU-CARIFORUM EPA), which was signed in October 2008, is an agreement between the 27-member states of the European Union and the 15-member states of the Caribbean Forum (Antigua and Barbuda, The Bahamas, Barbados, Belize, Dominica, Grenada, Guyana, Haiti, Jamaica, Saint Lucia, Saint Vincent and the

Grenadines, Saint Kitts and Nevis, Suriname, Trinidad and Tobago, and the Dominican Republic). The EU-CARIFORUM EPA, which has been described as “more than just a free trade agreement” (Jinnah & Morgera, 2013), deals with development and political issues alongside trade issues and builds directly on the Cotonou Agreement signed in 2000 (Colyer, 2012). The Cotonou Agreement is a comprehensive partnership agreement between the EU and the African, Caribbean and Pacific countries (ACP), which has served as the framework for the EUs relations with the 79-member countries since its inception.

The main exports from the Caribbean to the EU are fuel and mining products, bananas, sugar, rum, minerals and fertilizer, while the main exports from the EU to the Caribbean are ships, cars, engine parts, phone equipment and alcohol.

4.3.1 Sustainability Impact Assessments of the EU-CARIFORUM EPA

Trade Sustainability Impact Assessments (SIA) are independent assessments carried out on all negotiated trade agreements in the EU. They provide the European commission with valuable insight into the possible economic, social, environmental, and more recently, human right impacts that the new agreement may have, on both the EU and its partner countries. They are independent assessments carried out primarily by external consultants with input from the European Commission, civil society, member state experts and partner country government officials. Trade SIAs begin no more than six months into the negotiation process, so that results from the assessment can feed into the negotiation process and directly inform the final outcome of the process. The SIA is carried out in three consecutive phases: inception phase, interim phase and final report.

-Inception phase: This is the first part of the SIA where the foundation for the entire process is laid out. Here the methodological approach to be used is selected, a draft consultation plan is outlined, relevant stakeholders are identified, and preliminary screening and scoping is carried out. In this phase, the sectors that will be analysed in depth during the SIA are also selected. An inception report, which is available to all the stakeholders as well as the general public, is the final result of this stage. Making this report publicly available allows for stakeholder concerns and comments to be taken into consideration during the remaining phases of the SIA.

-Interim phase: This is the main phase of the SIA in which the main methodology selected in the inception phase is implemented. Here further screening and scoping is carried out, baseline and EPA scenarios are developed, and major sustainability impacts are identified. Relevant stakeholders are also consulted through various channels such as the dedicated SIA website, targeted interviews, meetings and workshops. An interim report is produced at the end of this phase and it is also made publicly available.

-Final report phase: This is the phase of the SIA in which all of the analyses performed in the previous phases are refined and a final report is produced. This report is usually written in language that is easy to understand, as the report is disseminated to both experts and non-experts. This report also addresses possible mitigation and enhancement efforts for the trade negotiators to consider during the negotiation process.

The Trade SIA for the EU-CARIFORUM EPA was carried out as part of a general SIA for the ACP group of countries. The SIA was initiated in late 2002 and lasted over a period of four years,

wrapping up in December 2006. The SIA focused on only one industry per region, and the industry chosen for the CARIFORUM was tourism. Tourism was chosen for the following reasons;

-The tourism industry will be highly impacted by changes in the trade measures that may be included in the Economic Partnership Agreement. There will be an increase in foreign direct investment (FDI) flows from the EU into the industry in forms of hotels, tourist resorts, cruise companies etc.

-It is a significant sector from an economic, environmental and social perspective. Economically, it makes up about 25% of the GDP of CARIFORUM countries; Environmentally, it is responsible for a high percentage of environmental degradation in those countries; and socially, it employs a very high percentage of the population.

The following section discusses the sustainability issues that were explored in detail during the SIA process, carried out by consultants from PricewaterhouseCoopers. These issues serve as the starting point of the EU-CARIFORUM EPA study, and will also serve as its focal point. These issues were divided into three sections as per the globally accepted pillars of sustainability; Environmental issues, Social issues and Economic issues (PricewaterhouseCoopers, 2007). These issues were also analysed using a scenario-based approach; a baseline scenario discusses business as usual for the tourism sector in the absence of the EPA, while the EPA scenario discusses the potential impacts of the EPA on each of the key issues identified.

Environmental Issues

Issue 1- Land Use, Watersheds and Coastal ecosystems:

Baseline scenario: Tourism facilities that are concentrated along ecologically sensitive areas have already destroyed mangroves and beaches and have contributed significantly to lagoon pollution. Uncontrolled development of marine recreational activities, marine water contamination and solid waste generation also contributes to the damage of coastal habitats. Planners are aware of the value of these ecosystems, but in most cases no mitigating action can be taken, the carrying capacity of the ecosystems is exceeded and the resulting impacts are, sometimes, irreversible. Tourism threatens the health of the beaches on which the sector relies for its success. The main tourism-related environmental threats to the marine and terrestrial ecosystems come from congestion, pollution and erosion (PricewaterhouseCoopers, 2007).

EPA Scenario: New European investment in hotels and restaurants may not pose environmental problems, however, experience shows that the lack of domestic regulations in the field of land use planning or lack of enforcement of existing regulations lead to negative impacts on ecosystems. If these laws are not properly enforced, construction of new hotels is likely to result in increased pressure on ecologically sensitive areas such as coral reefs and wetlands. There is also the possibility that higher tourist arrivals and diversification within the industry can expose previously untouched areas to degradation, if growth is not properly regulated. Increasing tourist arrivals will be combined with increasing demand for recreational activities that may cause physical changes in natural habitats (PricewaterhouseCoopers, 2007).

One way an EPA could help promote positive impacts is to support the development of eco-tourism and nature tourism in the region, however, even this has risks for ecologically sensitive areas. Estimates from national authorities and tourism organisations identify a growing interest of tourists in eco-tourism and nature tourism, reflecting a higher environmental awareness and interest in local traditions and unique ecosystems. Given this interest, public authorities could be encouraged to create marine or forest reserves, or to improve the management of existing reserves (PricewaterhouseCoopers, 2007).

Issue 2 - Use of Natural Resources:

Baseline scenario: The tourism industry consumes considerable amounts of potable water and in the Caribbean, tourists tend to use significantly more water than residents. Resort tourism is generally associated with high levels of water and energy consumption. This high use of potable water has the greatest environmental consequences in countries such as Barbados, which depend almost entirely on groundwater. Over-extraction leads to depletion and can lead to saline intrusion of the aquifers which will render them virtually useless. St. Lucia depends on surface water for its potable water. In St. Lucia, the environmental concern related to extraction is connected to decreasing levels of water in freshwater ecosystems (PricewaterhouseCoopers, 2007)

EPA scenario: An increase in tourist arrivals as a result of an EPA may result in higher consumption of freshwater and energy. Construction of new hotels is likely to be encouraged by full liberalisation of tourism and construction services and in the absence of adequate and enforced coastal management and land-use legislation, this could increase pressure on ecologically

sensitive habitats (such as coral reefs and wetlands). If construction of new hotels and resorts attract more tourists, the following consequences might be expected: increase in the demand for recreational activities, for energy and water resources, as well as an increase in solid and liquid waste generation. Prevention or reduction of such environmental impacts will depend on the existence of efficient solid and liquid waste treatment plants, on enforcement of environmental health protection legislation, on the habits of tourists, on the level of environmental awareness, and on the availability of environmental services and expertise (PricewaterhouseCoopers, 2007).

Issue 3 - Pollution, Waste-Water and Solid Waste:

Baseline scenario: A considerable amount of marine pollution in the Caribbean already stems from ship-generated waste (unprocessed waste and plastic products), discharged illegally. Although most ships are registered in countries that are signatories to international environmental protocols and subject to standards for waste treatment, storage and disposal, there is evidence that waste from cruise ships is reaching the shores of many Caribbean islands. The tourism industry already generates significant amounts of largely untreated liquid waste from the activities of hotel and restaurant kitchens, raw sewage, other waste from recreational vehicles (including cruise ships) and, from resort landscaping and golf course maintenance, herbicides, pesticides, and fertilizers. Seventy five percent (75%) of existing treatment plants do not function efficiently enough to protect the environment. Surveys undertaken in 1994 by the Pan American Health Organisation (PAHO) indicated that non-existent or improperly operated sewage systems at hotels, resorts, and vacation condominiums are major contributors to

pollution, and three-quarter of these plants do not comply with basic effluent criteria (PricewaterhouseCoopers, 2007).

Tourism generates substantial amounts of solid waste. Per capita, the average tourist (land and cruise) produces more solid waste than residents. Solid waste produced by the tourism sector adds to an overall waste disposal problem in the region. This problem has special significance for small islands such as Barbados and St. Lucia owing to the difficulty in siting solid waste disposal facilities, and to the fact that they are too small to support economically viable recycling programs. Very little is done in the areas of large-scale recycling, composting or incineration. Both Barbados and St. Lucia use sanitary land fill technology for the disposal of solid waste. However, closed landfills and dumps may pose threats to both ground water and marine coastal water quality through leaking and the generation of leachate (PricewaterhouseCoopers, 2007).

EPA scenario: An increase in the arrival of tourists and European investments in hotels and restaurants may increase solid and liquid waste as well as air pollution and noise due to new tourism facilities. However, European investments in tourism services and above all in environmental services may be beneficial for addressing the lack of waste disposal facilities and recycling in the Caribbean. Some European owned hotels and restaurants have undertaken environmentally sound practices such as the selective sorting of waste products. Domestic regulations or incentives to encourage these kinds of practices from locally-owned, as well as from foreign-owned tourism facilities should be put in place, to mitigate the negative environmental impacts related to tourism. Transfer of technology as well as training on the use of environmental services should also be encouraged (PricewaterhouseCoopers, 2007).

Social Issues

Issue 1 - Employment, Wages and Poverty:

Baseline scenario: Employment in the tourism sector may increase, in response to the potential increase in tourist arrivals. Currently, in the Caribbean the total number of people directly and indirectly dependent on tourism for a living (including taxi drivers, water sports operators, bar workers, restaurants, casinos, souvenir and other retail shops) is estimated at 1.3 million. In the region, Antigua & Barbuda has the highest proportion of the population working in the tourism sector with 95% of its total employment reliant on direct or indirect jobs in travel and tourism in 2004 (PricewaterhouseCoopers, 2007).

The average level of wages and the existence of a minimum wage are strongly related to the power of trade unions. The level of wages in the tourism sector also reflects the average wage in the whole economy and is therefore different from one Caribbean country to another. In Barbados for instance trade unions are strong and the minimum wage is higher than in some other Caribbean countries. In the hotel sub-sector, trade unions are powerful and may guarantee some requirements regarding the quality of jobs, with wages representing 35% to 40% of hotel costs (PricewaterhouseCoopers, 2007).

EPA scenario: Generally, an increasing demand for tourism services in the EPA scenario will produce a stronger positive impact on employment than in the baseline scenario. In addition, the usual practices of foreign tourism investors should be taken into account, as they generally favour local employment. For example, one of the world's leading groups in tourism, the group Accor,

with 4000 hotels in 140 countries employs local workers as a priority and 99% of their hotel staff around the world is local (PricewaterhouseCoopers, 2007).

-Issue 2 - Education and Professional Training:

Baseline scenario: In many cases, jobs in the tourism sector require low levels of qualifications and training. While this can offer jobs for unskilled labour, it is also consistent with an image of the hospitality industry generally offering low-paying work with little to offer in terms of careers and advancement opportunities. However, this is changing. Information technology is transforming the travel and tourism industry, and there is an increasing requirement for highly skilled workers and equipment. The lack of skilled workers in the industry at all levels has been cited as a weakness. Therefore, levels of training and education will play a role in determining impacts on tourism on employment. This is true across the sector, but particularly for skilled employment (PricewaterhouseCoopers, 2007).

EPA scenario: First, an increase in EU investment in the tourism sector with an EPA may strengthen the trend of higher skills requirement. Indeed, foreign-owned hotels, which are mainly large hotels, are particularly selective in their choice of managers, executives and technical staff in specific fields. Second, in terms of available financing, the increase in European foreign direct investment may also represent greater training opportunities for local employees than in the baseline scenario. Both of those trends - increase in the demand for high-skilled workers and increase of available financing - should lead to greater education and professional training opportunities for Caribbean people working in the tourism sector (PricewaterhouseCoopers, 2007).

Issue 3 - Gender Equity:

Baseline scenario: In the Caribbean and Latin America, 35% of the workforce employed in the tourism formal sector is female. However, there are some countries where women are the main tourism workers in the formal sectors, like in Barbados and Jamaica. In some of the other Caribbean countries, women dominate in the informal tourism sector where they provide a wide range of services to tourists (washing clothes, cooking, childcare, production and selling of handicrafts). Women tend to predominate in the majority of menial, semiskilled, domestic and services type occupations. Their presence is marginal at managerial and executive positions (PricewaterhouseCoopers, 2007).

EPA scenario: With respect to employment opportunities, since women make up the majority of workers in the tourism sector, an EPA resulting in an increase in employment is likely to imply a positive effect on the number of females employed in the sector compared to the number of males. For women, this increased employment opportunity provided by the development of the tourism sector is an opportunity to reinforce their financial and economic autonomy. However, as the presence of women is more marginal at executive and managerial levels, an increase in employment in the tourism sector may not lead to a proportional increase in female employment due to the evolution of skills required in the sector (PricewaterhouseCoopers, 2007).

Economic Issues

Issue 1 - Contribution to GDP:

Baseline scenario: Growth in tourist arrivals in the Caribbean from the EU, will likely result in an increase in the contribution to GDP through visitor expenditure, depending on the tourism product. With respect to tourism products, land-based tourism has more significant spinoff effects on the local economies and makes a larger economic contribution (direct and indirect employment and tax revenues) than water-based tourism. Given the relatively low contribution of cruise tourism to GDP, economic gains could be relatively small, despite the huge increase in numbers. However, cruise tourism is not expected to dominate the tourism market in the short term as it remains a relatively niche market for wealthier tourists (PricewaterhouseCoopers, 2007).

EPA scenario: For the Caribbean region, an increase in EU tourist arrivals will result in an increase in the production of tourism services, and therefore the contribution of tourism to GDP may be higher than in the baseline scenario. If trade liberalisation is combined with regional and national policies in the Caribbean to improve air and maritime transportation between both regions (through charter programmes for example), positive effects on GDP could be strengthened (PricewaterhouseCoopers, 2007).

-Issue 2 - Investment

Baseline scenario: The tourism sector currently receives a sizable proportion of both local and foreign investment. Under the baseline scenario, and considering the current trade regime that

exists between the CARIFORUM countries and the EU, it is likely that EU investments in the Caribbean tourism sector will not experience significant changes. Economic forecasts indicate that the share of capital investment dedicated to travel and tourism out of total capital investment will experience a modest increase between 1999 and 2014 for the CARIFORUM countries, rising from 35.2% to an average of 37% (PricewaterhouseCoopers, 2007).

EPA scenario: Conclusions of the joint simulation on total investment in the Caribbean appear contrasted. This conclusion is supported by results of the joint simulation from Jamaica and Trinidad & Tobago, which are different. In Jamaica, the current account balance is estimated to decrease significantly (-8.73%), which in turn produces a decrease of 2.95% in total investment. In Trinidad & Tobago however, there is an increase of almost 3.32% in total investment. On the sectoral side, all the sectors experience an increase in production, including construction and distribution. Moreover, in both countries, it appears that, considered independently, a 10% increase in physical capital from the EU to the Caribbean produces an increase of around 2% in total investment (PricewaterhouseCoopers, 2007).

-Issue 3 - Current Account Balance

Baseline scenario: The expected increase in Caribbean exports of tourism services through further tourist arrivals is likely to result in an improvement in the balance of payments. In 2004, travel and tourism represented, on average, 42% of total exports. Antigua & Barbuda and St. Lucia rely the most on travel and tourism in this respect. In Antigua & Barbuda it accounts for 72.3% of total exports and in St. Lucia, for 66.1% of total exports (PricewaterhouseCoopers, 2007).

EPA scenario: The standard definition of the current account balance is considered to be the difference between what comes into a country (such as sales of imports, wages from foreign workers, and capital income from FDI) and what goes out of the country (such as exports and transfers). Any increase in tourist arrivals as a result of more trade flows, is expected to improve the services balance and therefore, the current account balance and the balance of payments of the Caribbean countries (PricewaterhouseCoopers, 2007).

4.3.2 Sustainability Provisions in the EU-CARIFORUM EPA

The EU-CARIFORUM EPA contained both an environmental and a social issues chapter, however the agreement also had sustainability provisions present elsewhere in its text. The provisions discussed below are those that pertain to the issues discussed in the SIA report (see Appendix 3 for the full form of sustainability provisions highlighted in this section).

Environmental Impacts

Land use, Watersheds and Coastal Ecosystems

- ***Agriculture and Fisheries (Article 37.3)***: This provision recognises that the fisheries and marine ecosystems of the CARIFORUM States are complex, biologically diverse and fragile and that exploitation should take into account these factors through effective conservation and management of fisheries resources and related ecosystems (EU-CARIFORUM EPA, 2008)

Use of Natural Resources

- ***Cooperation on eco-innovation and renewable energy (Article 138)***: This provision discusses the important role of innovation in the pursuit of sustainable development, and encourages parties to foster cooperation and innovation in the following areas;

- (a) Projects related to environmentally-friendly products, technologies, production processes, services, management and business methods, including those related to appropriate water-saving and Clean Development Mechanism applications;
- (b) Projects related to energy efficiency and renewable energy;
- (c) Promotion of eco-innovation networks and clusters, including through public-private partnerships;
- (d) Exchanges of information, know-how and experts;
- (e) Awareness-raising and training activities;
- (f) Preparation of studies and provision of technical assistance;
- (g) Collaboration in research and development; and
- (h) Pilot and demonstration projects.

(EU-CARIFORUM EPA, 2008)

Social Impacts

Employment, Wages and Poverty:

Social Aspects (Article 191.2): This sub-section of this provision reaffirms the parties' commitments towards the UN Economic and Social Council on Full Employment and Decent work. Parties should promote trade and sustainable development in a manner that provides and ensures full, productive employment for all - men, women and young people (EU-CARIFORUM EPA, 2008).

-Education and Professional Training:

Development Cooperation and Technical Assistance (Article 117.2): This provision states that the parties shall cooperate towards the goal of achieving equivalency between the CARIFORUM tourism sector and internationally recognized tourism standards by providing technical

assistance and tourism exchange programs and training, which may include language training for tourism service providers (EU-CARIFORUM EPA, 2008).

Economic Impacts

Investment

Maintenance of Standards (Article 73): This provision pertains to investments and derogation i.e. the lowering of levels of environmental and social protections afforded in a law. The parties involved in the EPA must not encourage foreign direct investment by lowering domestic environmental, labour or occupational health standards (EU-CARIFORUM EPA, 2008).

4.3.3 Targeted Action under the EU-CARIFORUM EPA

There were a number of cooperative efforts undertaken between the EU and the CARIFORUM countries under the EU-CARIFORUM EPA. These projects, which are summarised below, focused on a variety of different areas (For detailed descriptions of each project, see Appendix 4).

Table 5 - Cooperative efforts under EU-CARIFORUM EPA

Project Name	Issue	Location	Duration	Budget (\$)
Waitukubuli National Trail - Discover Nature for Heritage Development	Land use, Watersheds and Coastal ecosystems	Dominica	Feb 2007 - Dec 2011	Not Available
Public Sector Smart Energy Program	Cooperation on Eco-innovation and Renewable Energy	Barbados	Nov 2013 - Oct 2016	7.6m
Water Supply and Sanitation Infrastructure Improvement Programme	Pollution, Waste Water and Solid Waste	Guyana	July 2014 - July 2019	14.8m
Capacity Building in Drinking Water Supply	Pollution, Waste Water and Solid Waste	Suriname	Aug 2012 - Aug 2016	Not Available
Promotion of agribusiness development in Northern Belize	Employment, Wages and Poverty	Belize	Jan 2015 - June 2017	Not Available
Capacity Building in Applied Renewable Energy Technologies	Cooperation on Eco-innovation and Renewable Energy	Guyana and Suriname	Oct 2013 - April 2017	Not Available

4.3.4 Summary of Findings and Discussion

Table 6 - Summary of Findings for EU-CARIFORUM EPA

Issue Area		Sustainability Impact Assessment	Sustainability Provisions	Targeted Action
Environmental Issues	Land Use, Watersheds & Coastal Ecosystems	As a result of lax environmental laws, the construction of new hotels and tourism-related infrastructure will increase the burden on terrestrial and coastal ecosystems that are already fragile	<i>Agriculture and Fisheries (Article 37.3)</i>	Waitukubuli National Trail - Discover Nature for Heritage Development
	Use of Natural Resources	Increased tourism will result in an increase in the use of water and energy resources	<i>Cooperation on eco-innovation and renewable energy (Article 138)</i>	<ul style="list-style-type: none"> Barbados Public Sector Smart Energy Program Capacity Building in applied renewable energy technologies in Guyana and Suriname
	Pollution, Wastewater& Solid waste	An increase in tourists to the CARIFORUM countries will result in higher levels of solid and liquid waste pollution, as the rules governing waste disposal are lax and not effectively enforced.	-	<ul style="list-style-type: none"> Water Supply and Sanitation Infrastructure Improvement Programme (WSSIIP) Capacity Building in drinking water supply in Suriname
Social Issues	Employment, Wages & Poverty	EPA will have positive effects on employment as an increase in foreign direct investments will result in an increase in the number of available jobs	<i>Social Aspects (Article 191.2)</i>	Promotion of agribusiness development in Northern Belize
	Education and Professional Training	An increase in foreign direct investments may also provide more opportunities for training local employees	<i>Development Cooperation and Technical Assistance (Article 117.2)</i>	-
	Gender & Equity	EPA will give women a better chance to reinforce their financial & economic autonomy	-	-
Economic Issues	Contribution to GDP	An increased investment in tourism will have positive impacts on the CARIFORUM countries' GDP	-	-
	Investment	The EPA will help to improve and facilitate FDI in the Tourism sector	<ul style="list-style-type: none"> <i>Behaviour of Investors (Article 72 C)</i> <i>Maintenance of Standards (Article 73)</i> 	-
	Current Account Balance	Any increase in tourist arrivals is expected to improve the current account balance of the CARIFORUM countries	-	-

Environmental Issues: The SIA found that coastal ecosystems that are already fragile in the Caribbean will be further burdened by the construction of new hotels and tourist attractions due to a lack of stringent environmental and land-use regulations. It also found that an increase in tourist numbers will result in an increase in the use of energy and water resources, with the latter possibly resulting in the depletion of groundwater resources. Finally, the SIA found that increased tourism activities will contribute to both solid and liquid waste pollution, both from cruise tourists and land tourists. The potential environmental issues identified in this section of the SIA stemmed from a lack of effective environmental regulations and adequate planning. The new EPA was projected to increase the level of tourism in the CARIFORUM countries, and if there had been effective land use and waste management plans in place, the adverse effects of this increase in tourists might have been absorbed or mitigated much more easily.

In the text of the EPA, there were two sustainability provisions of note that could be said to have addressed some of the issues discussed in the SIA; Article 37.3 (Agriculture and Fisheries) and Article 138 (Cooperation on Eco-Innovation and Renewable Energy). Article 37.3 refers to the fragility of the terrestrial and marine ecosystems of the CARIFORUM countries and urges them to improve on conservation and management efforts, while Article 138 encourages countries to invest in and cooperate towards research in renewable sources of energy, so as to ease the burden of increased tourism activities on non-renewable sources. The targeted projects that addressed each of these issues were, respectively, the Waitukubuli National Trail project in Dominica and the Public Sector Smart Energy Program in Barbados.

Social Issues – The EPA was projected to have positive impacts on employment and wages, as a growth in the tourism sector will provide more jobs. It was also projected to result in more opportunities for and exposure to training and education for CARIFORUM employees in the tourism sector. Finally, the EPA will contribute to reducing the gender inequality that exists as women will be able to exercise more financial autonomy, as they get access to better paying jobs.

Article 191.2 (Social Aspects) reaffirms the parties' commitments towards the UN Economic and Social Council on Full Employment and Decent work, and encourages parties to promote trade and sustainable development in a manner that provides and ensures full, productive employment for all people. This provision can be linked to the SIAs discussion of the issue of employment, wages and poverty, as it commits the parties into ensuring that mechanisms are put into place to provide decent employment for its citizens. A project that can be linked to this provision is the Promotion of Agribusiness Development project in Northern Belize, which will help to create commercial agribusiness-based enterprises to provide employment in rural communities, and ultimately contribute towards the reduction of poverty.

Article 117.2 (Development Cooperation and Technical Assistance) encourages parties to work towards the goal of achieving equivalency between the CARIFORUM tourism sector and internationally recognized tourism standards by providing technical assistance, tourism exchange programs and training, which may include language training for tourism service. This provision is related to the issue of education and professional training discussed in the SIA, as it encourages parties to invest in educating its employees in the tourism sector, thereby improving their knowledge and expertise and raising it up to par with global standards.

Economic issues – The new EPA was projected to improve the overall economic situation of the CARIFORUM countries. It will contribute towards the growth of their GDP, increase their current account balance and attract and facilitate foreign direct investment in the tourism sector.

Article 72 c (Behaviour of Investors) urges investors to ensure that their investments are not managed in a manner that circumvents obligations to international environmental agreements to which the EU or CARIFORUM countries may be party to, while Article 73 (Maintenance of Standards) urges states to ensure that FDI is not encouraged by the lowering of domestic environmental, labour or occupational health policies. These provisions are important for the CARIFORUM countries, as they will help to guide the behaviour of new investors in the tourism sector and the domestic policy decisions of parties.

In the next chapter, the results of the analysis carried out in this chapter will be further unpacked. The two agreements analysed will also be compared with one another, and the findings will be discussed in light of the research questions.

Chapter 5 - Discussion and Recommendations

5.1 Introduction

This study was carried out with the objective of comparing different developed country (Canada and EU) approaches towards including environmental provisions in their trade agreements. This comparison will help to contribute to the conversation on which country approach seems to be more effective at triggering change, with the purpose of guiding, informing and transforming future trade policy. To arrive at this objective, the following processes, policy and programs were studied: the impact assessments that were carried out before the trade agreement, the provisions included in the trade agreements, and the cooperative efforts that were undertaken under the trade agreements. This chapter begins by revisiting the research questions. It then summarises the findings of the thesis, makes policy recommendations, discusses study limitations and recommendations for future research, and concludes by discussing the implications of the research findings for the future of environmental and sustainability provisions.

5.2 Revisiting the Research Questions

Question 1: Do the results of impact assessments of trade agreements influence the content of their environmental provisions?

Canada-Colombia FTA

In order to determine if the results of the CCOFTA EA fed into the contents of its environmental provisions, it is important to first consider what the results of the EA were. The CCOFTA employed an issue-based approach to its impact assessment, focusing in general on environmental issues that could arise as a result of the new FTA, rather than narrowing the analysis to specific

environmental effects of the FTA on a particular sector or industry. The issues selected for analysis are chosen based on discussions among the members of the EA committee, meetings with stakeholders, and submissions from the general public. A merit of this approach is that a wide variety of environmental issues may potentially be analysed, as the FTA will have an impact on different sectors of the country's economy. Thus, the EA should ideally focus on multiple sectors, but this wide variety of options may result in difficulties when it comes to arriving at a consensus for the selection of key issues to be analysed.

For the CCOFTA, the EA report concluded that the new FTA would result in little to no environmental damage in Canada, with vague mention of climate change impacts in both Canada and Colombia (DFAIT, 2008). Only two environmental issues were addressed in this report; climate change and GHG emissions, and nutrient loads in rural watersheds. The selection of these two issues arose out of the Government of Canada's consultations with the Environmental Assessment Advisory Group (EAAG) and the Federal/Provincial/Territorial Committee on Trade. Members of these groups were concerned that increased economic activity as a result of the new FTA would contribute to an increase in Canada's greenhouse gas (GHG) emissions, and that an increase in agricultural activity would result in more nutrients being deposited into rural water bodies (DFAIT, 2008). The EA found these issues to be "non-issues", with the report concluding that *"...the economic effects of the Canada-Colombia free trade negotiations, while important, will be quite modest relative to Canada's overall economic activity, and as a consequence the environmental impact is not expected to be significant"* (DFAIT, 2008, p. 10)

In order to answer the research questions of this thesis, the issues identified during the EA process served as the focal point of the study. Therefore, in the second phase of the thesis,

CCOFTAs environmental side agreement was studied for provisions that directly addressed the two issues identified in the EA (climate change and nutrient loads in rural watersheds), but no environmental provisions were found. There was no evidence to show that results of the EA influenced the content of the environmental provisions. Rather, the environmental provisions included in the agreement were mostly common and general provisions (see Appendix 2, discussion on categories of environmental provisions) which did not address any specific environmental issues. These provisions were of a boiler-plate nature, and seemed to have been culled from a template for environmental provisions. A quick scan of and comparison between the CCOFTA and other FTAs between Canada and other countries show that the environmental provisions are similar across-board, with little or no special references made to specific environmental problems.

Table 7 - Canada's FTAs and their environmental provisions

	NAFTA	Canada-Chile (1996)	Canada-Costa Rica (2002)	Canada-Colombia (2008)	Canada-Peru (2009)	Canada-Jordan (2012)	Canada-Panama (2013)	Canada-Honduras (2014)
Provisions to ensure that their laws and policies provide for high levels of environmental protection;	x	x	x	x	x	x	x	x
Provisions to ensure effective enforcement of domestic environmental laws;	x	x	x	x	x	x	x	x
Provisions to ensure that environmental laws are not relaxed in order to encourage trade or investment;	x	x	x	x	x	x	x	x
Provisions to ensure that procedures for environmental impact assessment are maintained;	x	x	x	x	x	x	x	x
Provisions to ensure that proceedings are available to provide sanctions or remedies for violations of their environmental laws;	x	x	x	x	x	x	x	x
Provisions to promote public awareness of environmental laws and policies;	x	x	x	x	x	x	x	x
Provisions to promote the conservation and sustainable use of biological diversity;				x	x		x	
Provisions to encourage voluntary best practices of corporate social responsibility			x	x	x	x	x	x
Provisions to promote trade and investment in environmental goods and services;				x	x	x	x	x

Source: Adapted from Jinnah & Morgera, 2013

The reason for this may be because Canada's environmental provisions are based in part on NAFTAs (1992) environmental provisions. NAFTA was Canada's first encounter with environmental provisions, and its next agreement after NAFTA, which was signed with Chile in 1996, had environmental provisions that were modelled directly after NAFTA's (Colyer, 2011). Subsequent trade agreements with Costa Rica and Peru followed this trend, and it seems that the same trend is present in the CCOFTA's environmental provisions. It is however disappointing to find that 16 years after signing NAFTA, Canada's environmental provisions had not evolved significantly beyond NAFTA-style environmental provisions.

As mentioned in the previous chapter, the draft EA (phase 2) for the CCOFTA was skipped because the initial EA (phase 1) found that no significant environmental damage was going to occur for Canada. It is however important to note that the fundamental purpose of the draft EA is to inform the trade negotiators of the environmental issues identified and explored, with the aim of guiding the ensuing trade negotiations. Since the CCOFTA EA process lacked a draft EA, it may be safe to assume that the negotiation process lacked this guidance, and may have suffered from a lack of sufficient information on environmental issues. This may also have contributed towards the absence of innovative and targeted environmental provisions which addressed the two focal issues analysed in the EA. Another possible reason for the lack of provisions which addressed specific issues from the EA report may be the general belief that the environmental provisions present across most of Canada's trade agreements are sufficient enough to deal with any environmental problems that may arise as a result of the agreement (Gehring & Segger, 2005) , especially as these provisions are broad and address general environmental issues.

EU-CARIFORUM EPA

The EU-CARIFORUM SIA deployed a "sector-based" approach to its impact assessment. This in-depth assessment focused on the possible sustainability impacts of the new EPA on the CARIFORUM's tourism sector. A possible merit of this approach is the specificity and the detailed level at which these issues are explored. This could also be considered a demerit, as it could be argued that by focusing and narrowing in on only one sector, the SIA process would certainly overlook other possible sustainability impacts that could arise from other sectors. This is true for the EU-CARIFORUM EPA, as the top traded goods between the EU and CARIFORUM countries include goods from the agriculture, manufacturing and mining sectors (foodstuffs, beverages,

tobacco, transport equipment, vegetable products and mineral products), but impacts from these sectors were not assessed.

To answer the question of whether or not the results of the EU-CARIFORUM SIA influenced the content of the EPA's sustainability provisions, the results of the SIA need to be re-examined. The SIA found that an increase in tourism activities as a result of the new EPA will result in environmental degradation, if mitigating policies are not put into place. These damages range from the destruction of already fragile coastal ecosystems, and exposure of formerly pristine environmental reserves to new stressors, to an increased dependence on non-renewable energy sources, and an increase in land and water pollution. A few provisions which directly addressed these issues were found in the text of the EPA. Article 37.3 (Agriculture and Fisheries) makes reference to the fragility of the CARIFORUM states terrestrial and marine ecosystems, and encourages parties to pursue effective conservation and management of these ecosystems, based on sound scientific evidence and the precautionary principle. Another provision that directly addressed the issue of the use of non-renewable energy sources was found in Article 138 (Cooperation on Eco-Innovation and Renewable Energy). The provision urges the partner countries to foster cooperation, innovation, the rendering of technical assistance and the development of projects in the areas of renewable energy, environmentally friendly products and technology, eco-innovation and energy efficiency. This provision may have been included as a response to one of the recommendations of the final SIA report, which was for the EPA to include provisions that will encourage the generation of a sustained market for environmental goods and services, as well as the promotion of renewable sources of energy and investment in the necessary infrastructure to achieve this goal. A scan of other existing EPAs with the remaining

members of the ACP group (EU-South African Development Community, EU-East African Countries and EU-West African States) show that these provisions (Articles 138 and 37.3) are unique to the EU-CARIFORUM EPA, and were included in the agreement based on the results and the recommendations of the SIA.

The SIA also found that the EPA will result in an increase in employment opportunities, with higher income, which will contribute towards closing the gender wage gap. Some of these new jobs may require higher levels of education and qualification, and this training may be offered by employers to employees. The Final SIA report urged the parties to situate education and training at the forefront of tourism development, because doing so will help to ensure that formal education and vocational training systems are adapted and updated to reflect the rapidly changing human resource climate of the tourism industry. This recommendation is reflected in the EPA's Article 117.2 (Development Cooperation and Technical Assistance), which encourages the parties to cooperate towards the goal of achieving equivalency between the CARIFORUM tourism sector and internationally recognized tourism standards by providing technical assistance, tourism exchange programs and training. Article 191.2 (Social Aspects) urges the parties to promote trade and sustainable development in a manner that provides and ensures full, productive employment for all its citizens. This provision makes reference to the United Nation's Economic and Social Council's Full Employment and Decent Work action plan, whose main aim is to create an environment at national and international levels that are conducive to the generation of full and productive employment and decent work for all, for the aim of poverty eradication and sustainable development.

As seen from the discussion above, there is evidence to show that the results and the recommendations of the EU-CARIFORUM SIA were considered by trade negotiators, and that some of these results went on to influence the content of some of the sustainability provisions found in the text of the EPA.

Question 2: Do the results of impact assessments and the contents of environmental provisions influence the choice of cooperative efforts between the parties?

Canada-Colombia FTA

The environmental cooperative efforts and projects that have been carried out under the CCOFTA have mostly focused on climate change. These efforts included climate change resilience projects aimed at parks and protected areas, educational programs that have resulted in the training and certification of 437 individuals (government officials, citizen groups and journalists) on the mitigation of natural disasters potentially related to climate change, as well as enhanced capacity building projects targeted at government officials to train them on the design and implementation of Pollutant Release and Transfer Registries (PRTR). On the Canadian end, funding for these projects came from Environment and Climate Change Canada, supported by funding from other international aid organisations (Government of Canada, 2014).

Recalling the discussion on the contents of the EA report in Chapter 4, climate change was one of the issues explored, and the need for the establishment of climate change education and adaptation programs in Colombia was briefly highlighted. Considering this information, the projects that have been carried out under this FTA seem to have been influenced by the results of the Environmental Assessment, but not by the contents of the environmental provisions.

EU-CARIFORUM EPA

The cooperative projects that have been carried out under the EU-CARIFORUM EPA are more diverse than those of the CCOFTA. There were natural area preservation projects like the construction of the Waitukubuli National Trail, infrastructure replacement and enhancement projects like the Barbados Public Sector Smart Energy Program, and capacity building projects like the Capacity Building in Drinking Water Supply in Suriname program. Funding for these projects came from the European Development Fund, which is the EU's main instrument for providing development aid to African, Caribbean and Pacific (ACP) countries, and is financed by direct contributions from the EU member states.

The Waitukubuli National Trail project, which was the construction of the Caribbean's first long distance trail, exhibits one of the fundamental principles of land use planning, which is the allocation of land in a manner that benefits members of a community, while also preserving ecosystems and safeguarding natural resources. Through this program, the government chose to pursue ecological enhancement and preservation, instead of converting the forests, farmlands and coastal areas within and around this trail into roads or housing. The government of Dominica can be said to have been fulfilling their obligations under the EPA's Article 37.3 (Agriculture and Fisheries), which encourages parties to pursue effective conservation and management of terrestrial and marine ecosystems. This project was not just situated in the realm of ecological conservation, but also in the intersection of social and economic agendas, as its establishment resulted in the creation of new socio-economic initiatives at the community level, which were

accompanied by marketing and training programs. Examples of these initiatives include the establishment of campgrounds, food stalls, guesthouses, tourist guides, and crafts markets, which have begun to generate alternative sources of income for members of the rural communities surrounding the trail.

The Barbados Public Sector Smart Energy (PSSE) program can be linked to the EPA's Article 138 which aims to foster cooperation on eco-innovation and renewable energy. The PSSE program, whose aim is to implement renewable energy solutions and energy efficiency measures in the public sector, complements a wide range of policies and programs which the Barbados government is adopting to cut energy costs and reduce its dependence on imported fuel. An example of one of these complementary programs, funded by the Inter-American Development Bank (IDB), is an Energy Smart Fund for the private sector currently in operation, which targets small and business enterprises, including hotels, to facilitate the purchase of renewable energy and energy efficiency equipment. Together, these programs will actively contribute towards the overall objective of reducing the country's dependence on fossil fuels.

In the EU-CARIFORUM case, links can be drawn from some of the issues discussed in its SIA report to provisions in the EPA (e.g. the SIA's discussion on the increased dependence on non-renewable energy sources due to increased tourism and Article 138 on eco-innovation and renewable energy). Issues discussed in the SIA report can be further linked to projects carried out under the EPA (e.g. the Barbados Public Sector Smart Energy Program). It is important to note here that the links between sustainability provisions and targeted projects may not always be as visible or as evident as the links between the SIA results and the sustainability provisions.

Question 3: Which country approach to environmental and sustainability provisions seems to be more effective at promoting the agenda of sustainable development?

The Brundtland Report (1987) defines sustainable development as development that meets the needs of the present without compromising the ability of future generations to meet their own needs. Sustainable development has increasingly become a foundational principle for policy objectives around the world, widely accepted as incorporating three, independent and mutually reinforcing pillars; economic development, social development and environmental protection. Evidence for this pursuit of sustainable development at the global level is embodied in the Sustainable Development Goals (SDGs). The SDGs which were adopted in 2015 are a set of 17 international development goals that aim to navigate the world towards the aim of sustainable development by the year 2030. However, both the CCOFTA and the EU-CARIFORUM EPA were signed in 2008, and at that time, the SDGs were not in existence. However, the Millennium Development Goals (MDGs) were, so it is only fair to discuss these agreements in light of the MDGs first.

The MDGs which were adopted in 2000, were a list of 8 goals. Their primary aim was to eradicate extreme poverty, while promoting gender equality, education, and environmental sustainability, by the year 2015. In the MDGs, trade was situated as a mechanism through which the eradication of extreme hunger and poverty (MDG 1) would be achieved by providing developing countries with opportunities for economic growth. MDG 7 encouraged countries to develop policies that promote and ensure environmental sustainability, and even though trade was not situated as an avenue through which this goal could be achieved, both the CCOFTA and the EU-CARIFORUM

EPA had provisions that reflected this goal. Trade was also situated as one of the sites of global partnership for development (MDG 8). Within MDG 8, Target 16 encouraged developed countries to cooperate with developing countries, towards the development and implementation of strategies for decent and productive work for youth. Only the EU-CARIFORUM EPA included any provisions that were related to this goal through its Article 191.2 (Social Aspects), which encourages the partner countries to provide and ensure full, productive employment for all its citizens.

The MDGs have been criticized for being essentially social goals, without an economic pillar, whose achievements were driven by economic activities (Kumar, Kumar, & Vivekadhish, 2016). This is where the SDGs do a better job, as they truly incorporate the three pillars of sustainable development. With the SDGs which replaced the MDGs in 2015, trade seems to have been upgraded to a higher level of importance as it is referenced in more targets, although this could just be a direct reflection of the ratio of targets in the MDGs (18 targets) to the SDGs (169 targets). SDG 6a encourages countries to extend cooperation and capacity building support to developing countries in water and sanitation related activities and programmes. The Water Supply and Sanitation Infrastructure Improvement Programme (WSSIIP) in Guyana, and the Capacity Building in Drinking Water Supply Program in Suriname are examples of projects under the EU-CARIFORUM EPA that fall under the category of these water-related programmes referred to in the SDG.

SDG 7a encourages countries to enhance international cooperation towards the facilitation of research on clean energy, renewable energy and energy efficiency, while SDG 7b encourages developed countries to render assistance to developing countries for the expansion of

infrastructure and upgrading of technology for supplying sustainable and renewable energy services. The EU-CARIFORUM EPA's Article 138 (Cooperation on Eco-Innovation and Renewable Energy) is a reflection of SDG 7a, as it urges the partner countries to foster cooperation in the development of projects in the areas of renewable energy. The Capacity Building in Applied Renewable Energy Technologies program in Guyana and Suriname, which helped to upgrade universities' capacities to develop and deliver educational programs and courses in renewable energy, is also situated in the realm of SDG 7a. The Barbados Public Sector Smart Energy Program can be situated in the realm of SDG 7b, as its aim was to upgrade existing energy infrastructure in Barbados's public sector to more energy efficient, renewable-energy dependent infrastructure.

Even though the EU-CARIFORUM EPA was signed before the SDGs came into existence, the sustainability provisions and even some of the cooperative projects seem to reflect the goals of the highlighted SDGs. In retrospect, the contents of the EPA seem to be an indication that the negotiators were able to anticipate critical issues related to the SDGs. The CCOFTA on the other hand did not contain any environmental provisions which could be linked to the SDGs.

From the discussion above, using the MDGs and the SDGs as yardsticks to assess which one of the developed country approaches to environmental and sustainability provisions seems to be more effective at promoting the agenda of sustainable development, it is obvious that the EU-CARIFORUM EPA is more advanced in this regard than the CCOFTA.

5.3 Summary of Results

This study set out to compare two developed country approaches towards including environmental provisions in their trade agreements. For Canada, it found that the environmental

impact assessment is focused only on Canada, is carried out by government officials, and employs an issue-based approach. Its provisions focus only on environmental issues (rather than also considering social and economic issues), and they are not particularly unique to each FTA. For the EU, it found that the sustainability impact assessments focus on impacts in their partner country, are carried out by external consultants and employ a sector-based approach. Its provisions focus on environmental, social and economic issues, and provisions are more unique to each agreement than Canadian agreements.

This study also set out to determine if the results of impact assessments of trade agreements influence the contents of environmental and sustainability provisions in trade agreements, and if the results of the impact assessments and the content of the environmental provisions go on to influence the choice of cooperative efforts between countries. For the Canada-Colombia FTA, it found that the results of the impact assessment did not influence the content of the environmental provisions, but they might have influenced the choice of cooperative efforts between Canada and Colombia. For the EU-CARIFORUM EPA, it found that the results of the sustainability impact assessment clearly influenced the content of some of its sustainability provisions, and that some of the cooperative efforts carried out under the EPA may have also been influenced by the SIA results and the sustainability provisions. Overall, there seemed to be a more obvious link between the three stages of the EU-CARIFORUM EPA, than for the three stages of the Canada-Colombia FTA.

Finally, the study set out to assess which one of the country approaches to environmental and sustainability provisions seems to be more effective at promoting the agenda of sustainable

development, and it found that the EU approach seems to be the best of the two approaches analysed.

Table 8 - Comparison between EU-CARIFORUM and CCOFTA

		EU-CARIFORUM EPA	Canada-Colombia FTA
Impact Assessments	Country Focus	CARIFORUM countries	Canada
	Investigating Party	External Consultants (PriceWaterHouse Coopers)	Government Officials
	Duration	4 years	18 months
	Approach	Sector-based (Tourism)	Issue-based
Provisions	Scope	Environmental, Economic and Social	Environmental
Cooperative Efforts	Scope	Environmental and Social	Environmental

These differences between the CCOFTA and the EU-CARIFORUM approach to including these provisions in their trade agreements can be attributed in part to the wide differences in the capacities of the parties involved in the respective agreements.

5.4 Policy Recommendations

This section proposes measures and recommendations that can be implemented by policymakers in Canada and the European Union.

Policy Recommendations for Canada

The Canadian government should make some improvements to its impact assessment of trade agreements mandate. These improvements should include

- **Changing the scope of their assessments to include impacts in their partner nation:** This recommendation is especially relevant for Canada's future trade agreements with developing countries, as most of these countries lack the capacity and resources to carry out these assessments by themselves, and would rather focus their attention on other activities.
- **Widening the focus of their assessments to include economic and social impacts i.e. a sustainability mandate:** A new FTA does not have impacts on the environment alone, but also has intended and unintended ramifications for the economy and the social wellbeing of the citizens. Also, the achievement of sustainable development requires integrated action among its three pillars, and to be as integrative as possible, the Canadian impact assessment of trade agreements process needs to reflect this understanding.

There is also a need for improvements in the types of environmental provisions included in their trade agreements. These include;

- Widening the focus of their provisions to include economic and social provisions alongside environmental ones i.e. sustainability provisions.
- Customizing provisions per agreement and specific partner country situation, as the use of boilerplate provisions across their different agreements implies a lack of true commitment to these issues,

If the improvements suggested above are implemented, the cooperative efforts and programs that will be undertaken under Canada's future FTAs will be more targeted, more diverse and will have a wider impact, as these programs will focus on not just climate change or environmental issues alone, but economic and social ones as well.

Policy Recommendations for the EU

At present, the EU system for conducting impact assessments and including sustainability provisions in their trade agreements seem to be the more ideal system. However, like the Canada-Colombia FTA, the EU could request for a list of true priority areas for cooperative efforts (see Chapter 4, Section 4.2.4 for details), from their partner countries. The priority areas should then be juxtaposed with the results from the sustainability impact assessments to arrive at a hybrid list of priority projects, which will be situated in the intersection of both the results of the sustainability impact assessments (research findings) and the list of their partner country's priority areas (priorities and desires). This will enable the partner countries to develop projects that are backed by empirical evidence, and that meet the needs and desires of the citizens. The projects that exist at this intersection will also gather sufficient political momentum and support, that will ensure their effective execution.

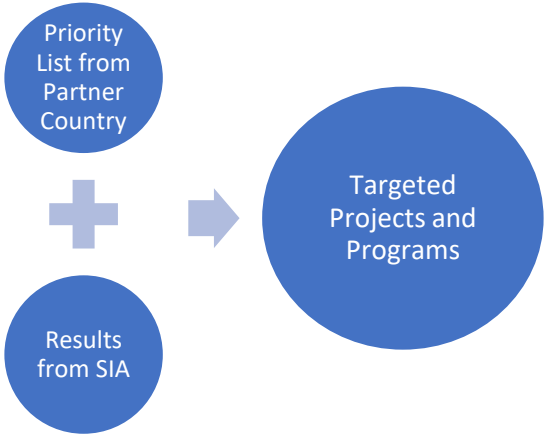


Figure 2 - Policy recommendation for targeted projects and programs

Policy Recommendations for Canada and the EU

Currently, the impact assessments of these two trading units consider only the effects of the new trade agreement being negotiated. One of the reasons why Canada found that the CCOFTA will not have any effect on Canada's natural environment, is because it was only investigating the impacts of the CCOFTA, and not the cumulative impacts of all their previous trade agreements alongside the impacts of the CCOFTA. Cumulative impacts (on a temporal and spatial scale) should be part of the scope of both systems' impact assessments, as this will help to determine if there are other important impacts that may have been overlooked as a result of the singular focus on one FTA.

5.5 Study Limitations and Recommendations for Future Research

Through the literature review carried out for this thesis and from its findings, an interesting observation has been made about the evolution of the trade-environment relationship. Early studies and conversations about this relationship were guided by the type of paradigm behind the environmental Kuznet's curve, which was to exploit, pollute, then repair the environment. These studies focused on investigating the effects of trade on the environment, with some studies finding evidence for the existence of an EKC, while others were unable to find such evidence. In recent years, efforts have been made to pursue a sort of balance between the objectives of trade and the environment, as evidenced in the inclusion of environmental provisions in trade agreements. However, prevailing practices in current trade regimes still reflect some of the EKC paradigm and as a result, efforts to arrive at mutual supportiveness between trade and environmental objectives have not been as effective as they should be. The reason for

this may lie in the underlying belief that trade and environmental objectives will always be at loggerheads, and cannot truly be mutually supportive of each other.

The concept of sustainable development, as well as the SDGs trump this paradigm. Trade (herein representing economic objectives), environmental objectives and social objectives can, and should be mutually supportive of each other. There is a need for more research to be carried out on the different mechanisms, processes and opportunities through which trade can be harnessed as a tool for sustainable development. Examples of such studies include:

- Research that focuses on the design of trade regimes that are more intentional about making trade mutually supportive of sustainable development.
- Research that focuses on the development of metrics or testing systems that measure the adequacy of individual country approaches to the inclusion of sustainability provisions in their trade agreements.

With respect to the specific limitations of this thesis, there are a couple of suggestions for future research:

- First, this study employed a desk research approach and its findings were limited to the content of primary and secondary documents. There is room for improvement on this method through the use of interviews with negotiators and policy makers involved in the trade agreement negotiation process, as well as visits to the partner countries to assess the state of enforcement of the cooperative efforts and programs that have arisen from the trade agreement.

- Second, this study focused on cooperative efforts and programs as a measure of performance of the environmental and sustainability provisions. However, there might be an opportunity to measure performance of these provisions through quantitative methods, by making use of quantifiable measures like environmental and sustainability performance indexes. For this to be successful, availability of historical data may play an important role, as such quantitative studies are usually more informative when performance can be assessed over a long period of time.

5.6 Conclusions

This thesis offers four key insights and contributions for the inclusion of sustainability provisions in trade agreements.

First, to arrive at targeted and innovative sustainability provisions, the impact assessment of the trade agreement must be extensive and comprehensive, and should cover a wide range of issues (environmental, social and economic). *Ex-ante* impact assessments of trade agreements should not just be treated as a mere box that should be ticked during the process of negotiating a trade agreement. Instead, they should be approached and implemented as a vital tool that will help partner countries identify possible environmental, economic and social impacts of a new trade agreement, contribute to finding ways to mitigate these impacts, and serve as a source of potential sustainability provisions to be included in the trade agreement.

Second, cooperative programs and efforts carried out under trade agreements may be impacted by the level of detail of their impact assessments and their sustainability provisions. Impact assessments and sustainability provisions need to be well detailed and targeted because they may affect the choice of cooperative efforts carried out between partner countries of a trade

agreement. Even though it is true that any form of cooperation between partner countries should be appreciated, these cooperative efforts will be better tailored if they are targeted at specific, important needs of the country, especially in the case of developing countries. Cooperative programs and resources in these countries should be aimed at problems or issue areas that would have otherwise gone untouched, due to a lack of capacity and resources. Highly comprehensive IAs and well detailed sustainability provisions will assist in identifying these special problem areas.

Third, as seen from the EU-CARIFORUM EPA analysis, sustainability provisions have the potential to serve as a site of SDG implementation. The EU-CARIFORUM EPA (2008) was drafted years before the SDGs (2015) were adopted, and one can only imagine how much more sophisticated sustainability provisions in future trade agreements will be, if efforts are made to intentionally integrate the targets of the SDGs into them.

Finally, there is room for the WTO to learn from and implement these approaches to sustainability provisions in its own agreements. The WTO currently has 159 members, and the inclusion of explicit sustainability provisions in its agreements may serve as an example for these countries, who may then be motivated to adopt the same practices in their bilateral trade relations. Moreover, if the inclusion of sustainability provisions in bilateral trade agreements is indeed a response to the WTO's failure to do so in its own agreements, there is the possibility that under umbrella language provided by the WTO, countries may not need to negotiate new bilateral agreements.

In conclusion, sustainability provisions in trade agreements are not to be seen as a replacement for multilateral environmental agreements or domestic sustainability policies, rather they should be regarded as one of many complementary efforts through which our goal of sustainable development will be achieved.

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Appendix 1 - Policy Drivers and Motivations for Environmental Provisions

Environmental provisions did not appear overnight in the body of FTAs, rather their inclusion in trade documents was triggered by the work of environmental activists (Lester, Mercurio, & Bartels, 2016), and have eventually become engrained in the trade policies of top trading countries. Countries like the USA, New Zealand and the European Union have Trade Acts and Strategies that specifically address environmental and sustainability issues and their interlinkages with trade and economic growth (IISD & UNEP, 2014).

The European Union's Sustainable Development Strategy: The EU Sustainable Development Strategy, was adopted in 2001. It includes seven Key Challenges, with one of them being the active promotion of sustainable development worldwide to make sure that the European Union's internal and external foreign policies are consistent with global sustainable development and international commitments (Durán & Morgera, 2012). The objective for the EU's external environmental agenda is: fostering the sustainable environmental development of developing countries, with the primary aim of eradicating poverty (Carbone & Orbie, 2014); helping to develop international measures to preserve and improve the quality of the environment and achieve sustainable management of global natural resources; and promoting an international system based on stronger multilateral environmental cooperation and good global environmental governance (Durán & Morgera, 2012). It is therefore not surprising that Trade Agreements which the EU are a part of, now contain more prescriptive environmental agreements than they did before.

The United States Trade Act: The US Trade Act of 2002 imposes a responsibility on the US to ensure that trade and environmental policies are mutually supportive of each. It also includes commitments to ensuring that free trade agreements do not cause partner countries to weaken protections in their domestic environmental laws as an encouragement for trade and to include provisions on environmental protection (George, 2013).

New Zealand's Framework for integrating Environment Standards and Trade Agreements: In New Zealand, a Cabinet-mandated instruction directs the government to ensure the integration of trade and environment policies in all international negotiations. The "Framework for Integrating Environment Standards and Trade Agreements" which was released in 2001 serves as a guide for New Zealand's trade and environment negotiations, and helps to ensure that sustainable development considerations are incorporated in all its international negotiations. The aim of the Framework is to harmonise New Zealand's objectives in trade and environment policies, while recognising that environmental standards should not be misused for protectionist reasons.

Appendix 2 - Categories of Environmental Provisions

There is a wide variety of environmental provisions in existence, however they can be categorized into this short list of ten provisions, based on Trade Agreements in existence. Most of the existing literature on environmental provisions discuss only their content, with studies analysing the location of these provisions in the trade agreements, their language and scope. The list below results from a combination of categories used by Colyer (2011), OECD (2007), and Berger, Brandi, & Bruhn (2016).

1. Commitments to effectively enforce domestic environmental laws.
2. Commitments related to maintenance of environmental standards (non-derogation, enhancement, or harmonisation of standards)
3. Mechanisms for public participation in the implementation of the Agreement
4. Binding dispute settlement mechanisms with respect to environmental obligations.
5. Co-operation for environmental issues and programs
6. Capacity building mechanisms and technical assistance in the field of environment.
7. Reconciliation of commitments under the agreement, WTO agreements and multilateral environmental agreements.
8. Environmental exceptions to trade sanctions.
9. Sector-specific provisions
10. Institutional arrangements for implementation of environmental provision

- **Commitments to effectively enforce domestic environmental laws:** This provision was introduced by NAFTA, because environmentalists were worried about Mexico and the possibility of the government not enforcing its environmental regulations in order to attract foreign investment. This commitment usually implores countries to ensure that mechanisms are in place for the effective enforcement of their environmental laws.

Example: NAFTA (Canada, Mexico, & USA) – With the aim of achieving high levels of environmental protection and compliance with its environmental laws and regulations, each Party shall effectively enforce its environmental laws and regulations through appropriate governmental actions.

- **Commitments related to maintenance of environmental standards (non-derogation, enhancement, or harmonisation of standards):** This provision requires parties to maintain the level of stringency of their environmental laws, or to enhance these laws if they were weak initially. It is similar to the commitment to enforce environmental laws, but is included in agreements to discourage countries from lowering environmental standards so they can become “pollution havens”

Example: US-Morocco FTA– Each Party recognises 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, 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.

- **Mechanisms for public participation in the implementation of the Agreement:** Public involvement is included in most of the recent FTAs with environmental provisions, especially those with the US. They require the parties to encourage public participation throughout the FTA process, especially its implementation. This will help to show transparency and reduce public opposition to the agreement.

Example: EU-CARIFORUM EPA – The Parties and the signatory CARIFORUM States commit to developing, introducing and implementing any measures aimed at protecting the environment and public health that affect trade between the Parties in a transparent manner, with due notice and public and mutual consultation and with appropriate and timely communication to and consultation of non-state actors including the private sector

- **Binding dispute settlement mechanisms with respect to environmental obligations:** Some Free Trade Agreements have a general dispute settlement mechanism to deal with all disputes under the agreement, while some have a separate dispute settlement mechanism for environmental issues. An example of such a case might include submissions by citizens of a country about the lack of effective enforcement of environmental laws because of the FTA.

- **Co-operation for environmental issues and programs:** Most of the FTAs with environmental provisions contain one about environmental cooperation in one form or the other. These cooperation efforts are designed to promote environmental conservation and protection. Most agreements merely state the fact that some form of cooperation will occur and do not go into specific details.

Example: CAFTA-DR-US – The Parties agree to cooperate to protect, improve and conserve the environment, including natural resources. The objective of the Agreement is to establish a framework for such cooperation among the Parties. The Parties recognise the importance of both bilateral and regional cooperation to achieve this objective

- **Capacity building mechanisms and technical assistance in the field of environment:** These types of provisions are usually found in agreements between developed and developing countries, as there is the tendency for developing countries to lack the capacity to effectively enforce, maintain and enhance their environmental regulations.

Example: *US-Morocco* – The United States shall endeavour to provide Morocco with technical advice and assistance for the purpose of improving risk assessment techniques, simplifying and

expediting customs procedures, advancing technical skills, and enhancing the use of technologies that can lead to improved compliance with laws and regulations governing importations.

- **Reconciliation of commitments under the agreement, WTO agreements and multilateral environmental agreements:** Most FTAs that contain environmental provisions contain a clause or article that defines or acknowledges the relationship between the current agreement and other agreements that the Parties are part of. They usually give precedence to the WTO and also include a list of Multilateral Environmental Agreements (usually in an annex) which both parties are members of. There are some FTAs which give precedence to the FTA over the WTO and MEAs. This provision is important in cases of disputes and conflict between agreements.
Example: US-Chile FTA – The Parties affirm their existing rights and obligations with respect to each other under the WTO Agreement and other agreements to which both Parties are party.

- **Environmental exceptions to trade sanctions:** This provision has its roots in Article XX of the GATT agreement, which allows for exceptions to the prohibition of trade restrictions, for the protection of human, animal and plant life and health, as well as the protection of natural resources. Most trade agreements either quote the words of Article XX, paraphrase it, or make reference to it in these provisions.
Example: CARICOM-Costa Rica FTA – For the purposes of Part Two (Trade in Goods), Article XX (General Exceptions) of the GATT 1994 and its interpretative notes, or any equivalent provision of a successor Agreement to which both Parties are party, are incorporated into and made part of this Agreement

- **Sector-specific provisions:** Some FTAs may contain provisions that relate to other sectors like fisheries and agriculture. These provisions are not very common and are mostly found in European Union Free Trade Agreements, and some US agreements.
Example: US-Peru TPA – The Parties recognize that trade associated with illegal logging, and illegal trade in wildlife, including wildlife trafficking, undermine trade in products from legally harvested sources, reduce the economic value of natural resources, and weaken efforts to

promote conservation and sustainable management of resources. Accordingly, each Party commits to combat trade associated with illegal logging and illegal trade in wildlife. The Parties recognize that good forest sector governance is critical to promoting the economic value and sustainable management of forest resources. Accordingly, each Party commits to take action under this Annex to enhance forest sector governance and promote legal trade in timber products.

- **Institutional arrangements for implementation of environmental provisions:** There are usually institutional arrangements under an FTA for supervision of its implementation, and sometimes there are also separate arrangements for the implementation of environmental provisions present in the agreement. These arrangements are usually in the form of a joint committee or secretariat, made up of environmental officials.

Appendix 3 - Selected Environmental and Sustainability Provisions from CCOFTA and EU-CARIFORUM EPA

Canada-Colombia Free Trade Agreement (2008)

- **Article 2: General Provisions**

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

2. Accordingly, and with the aim of achieving high levels of environmental protection, each Party shall effectively enforce, through government action, its environmental laws.

3. For the purpose of this Agreement, a Party has not failed to effectively enforce its environmental law in a particular case where the action or inaction in question by agencies or officials of that Party: (a) reflects a reasonable exercise of their discretion in respect of investigatory, prosecutorial, regulatory or compliance matters; or (b) is the result of bona fide decisions to allocate resources to enforcement in respect of other environmental matters which have been determined to have a higher priority.

4. Neither Party shall encourage trade or investment by weakening or reducing the levels of protection afforded in its environmental laws. Accordingly, neither Party shall waive or otherwise derogate from environmental laws in a manner that weakens or reduces the protections afforded in those laws to encourage trade or investment between the Parties.

5. Each Party shall ensure that it maintains appropriate procedures for assessing the environmental impacts in accordance with national law and policy of proposed plans and projects, which may cause adverse effects on the environment, with a view to avoiding or minimizing such adverse effects.

6. The Parties shall encourage the promotion of the trade and investment of environmental goods and services.

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

8. The Parties affirm the importance of the Convention on Biological Diversity, done at Rio de Janeiro on 5 June, 1992 ("Convention on Biological Diversity"), and agree to work together to advance the objectives of that Convention.

9. Nothing in this Agreement shall be construed to affect the existing rights and obligations of either Party under other international environmental agreements to which such Party is a Party.

- **Article 5: Biological Diversity**

1. The Parties recognize the importance of the conservation and sustainable use of biological diversity in achieving sustainable development and reiterate their commitment to promote the conservation and sustainable use of biological diversity.

2. The Parties also reiterate their commitment, as established by the Convention on Biological Diversity, to respect, preserve and maintain traditional knowledge, innovations and practices of indigenous and local communities that contribute to the conservation and sustainable use of biological diversity, subject to national legislation.

3. The Parties reiterate their sovereign rights over their natural resources and recognize their authority and obligations as established by the Convention on Biological Diversity with respect to access to genetic resources, and to the fair and equitable sharing of benefits arising out of the utilization of those genetic resources.

4. The Parties also recognize the importance of public participation and consultation, as provided by domestic law, on matters concerning the conservation and sustainable use of biological diversity.

5. The Parties agree to cooperate on the conservation and sustainable use of biological diversity within the framework provided by Section II of this Agreement.

6. The Parties shall endeavour to cooperate in order to exchange relevant information regarding:

(a) the conservation and sustainable use of biodiversity; (b) the avoidance of illegal access to genetic resources, traditional knowledge, innovations and practices; and (c) the equitable sharing of the benefits arising from the utilization of genetic resources and associated knowledge, innovations and practices.

- **Article 6: Corporate Social Responsibility**

Recognizing the substantial benefits brought by international trade and investment, the Parties shall encourage voluntary best practices of corporate social responsibility by enterprises within their territories or jurisdictions, to strengthen coherence between economic and environment objectives

European Union – Caribbean Forum Economic Partnership Agreement (2008)

- **Article 37.3 – Agriculture and Fisheries:** The Parties recognise that the fisheries and marine ecosystems of the CARIFORUM States are complex, biologically diverse and fragile and that exploitation should take into account these factors through effective conservation and management of fisheries resources and related ecosystems based on sound scientific advice and on the precautionary principle as defined by the FAO Code of Conduct on Responsible Fisheries.
- **Article 72 c – Behaviour of Investors:** Investors do not manage or operate their investments in a manner that circumvents international environmental or labour obligations arising from agreements to which the EC Party and the Signatory CARIFORUM States are parties.
- **Article 73 – Maintenance of Standards:** The EC Party and the Signatory CARIFORUM States shall ensure that foreign direct investment is not encouraged by lowering domestic environmental, labour or occupational health and safety legislation and standards or by relaxing core labour standards or laws aimed at protecting and promoting cultural diversity.

- **Article 117 – Development Cooperation and Technical Assistance:**

1. The Parties shall cooperate for the advancement of the tourism sector in the Signatory CARIFORUM States, given the inherent asymmetries in respective levels of development of the Parties.

2. Subject to the provisions of Article 7, the Parties agree to cooperate, including by facilitating support in the following areas: (a) The upgrading of national accounting systems with a view to facilitating the introduction of Tourism Satellite Accounts (TSA) at the regional and local level; (b) Capacity building for environmental management in tourism areas at the regional and local level; (c) The development of Internet marketing strategies for small and medium-sized tourism enterprises in the tourism services sector; (d) Mechanisms to ensure the effective participation of Signatory CARIFORUM States in international standard setting bodies focused on sustainable tourism standards development; programmes to achieve and ensure equivalency between national/regional and international standards for sustainable tourism; and programmes aimed at increasing the level of compliance with sustainable tourism standards by regional tourism services suppliers; (e) Tourism exchange programs and training, including language training, for tourism services providers.

- **Article 138 – Cooperation on eco-innovation and renewable energy:**

1. With a view to achieving sustainable development and in order to help maximise any positive and prevent any negative environmental impacts resulting from this Agreement, the Parties recognise the importance of fostering forms of innovation that benefit the environment in all sectors of their economy. Such forms of eco-innovation include energy efficiency and renewable sources of energy.

2. Subject to the provisions of Article 7 and 134, the Parties agree to cooperate, including by facilitating support, in the following areas: (a) projects related to environmentally-friendly products, technologies, production processes, services, management and business methods, including those related to appropriate water-saving and Clean Development Mechanism applications; (b) projects related to energy efficiency and renewable energy; (c) promotion of eco-innovation networks and clusters, including through public-private partnerships; (d) exchanges of information, know-how and experts; (e) awareness-raising and training activities;

(f) preparation of studies and provision of technical assistance; (g) collaboration in research and development; and (h) pilot and demonstration projects.

- **Article 191.2 – Social Aspects:** The Parties reaffirm their commitment to the 2006 Ministerial declaration by the UN Economic and Social Council on Full Employment and Decent Work, promoting the development of international trade in a way that is conducive to full and productive employment

Appendix 4 – Cooperative Programs between Parties

Canada-Colombia Free Trade Agreement

This section discusses any cooperative and capacity-building efforts between Canada and Colombia, that were carried out to tackle the issues discussed and explored during the environmental impact assessment process. Information on these projects was sourced from the Annual Reports Pursuant to the Agreement concerning Annual Reports on Human Rights and Free Trade between Canada and the Republic of Colombia for the years 2012 to 2016.

Climate Change & Greenhouse Gas Emissions

- **Project Name: Climate Change Resilience in Protected Areas**

Duration: 2012 - 2013

Budget: \$850,000

This project was a partnership between Parks Canada and National Parks of Colombia, and its main aim was to improve the resilience of local ecosystems to the effects of climate change. It did this by developing and implementing better practices for safeguarding and restoring the ecological integrity of protected areas in Colombia, thereby increasing their climate change adaptive capacities. This project helped to update management plans for 25 protected areas to strengthen the value of these sites in helping Colombia adapt to the impacts of climate change. Funding from this project also helped to support ecological restoration activities that took place in six parks to help reduce vulnerability to climate change. One of these parks is Colombia's Chingaza National Park. Here, park managers embarked on a project to restore the Paramo ecosystem that has been degraded by different human activities, cattle grazing in particular. The

restoration of this site will help maintain the source of drinking water supply for eight million Colombians, including the residents of Bogotá (Government of Canada, 2014)

- **Project Name: Climate Change Adaptation Educational Program**

Duration: 2012 - 2013

Budget: \$265,241

The Government of Canada provided support to the Climate Change Adaptation Educational Program (CCAR) del Alto Magdalena to support environmental education to municipal and regional government officials, citizen groups and journalists in order to build their capacity to mitigate the effects of natural disasters that arise due to changing weather conditions, such as increased flooding. This project developed and delivered training modules that certified 437 participants in "Environmental Risk Management in the Context of Climate Change" in four regions of Colombia (Government of Canada, 2013).

- **Project Name: Development of Nationally Appropriate Mitigation Actions in the Waste and Landfill sector (Technical Assistance)**

Duration: 2011 - 2013

The Government of Canada supported the Center for Clean Air Policy (CCAP) towards the development of transformational Nationally Appropriate Mitigation Actions (NAMAs) for the Waste and Landfill sector in Colombia. This support came in the form of funding, as well as technical assistance towards the development of an integrated approach for waste management. A pilot phase in the city of Cali helped to identify changes that could be made to overcome various

existing policy, financial, market and social barriers. The development phase of this NAMA project is still ongoing (Government of Canada, 2013).

- **Project Name: Pollutant Release and Transfer Registries (PRTR) Workshop**

Duration: 2015

Budget: \$12,500

A Pollutant Release and Transfer Registries (PRTR) workshop was held in August 2015 in Bogotá, Colombia. This binational training workshop focused on building government capacity on design and implementation of PRTRs to meet standards set by the OECD (Government of Canada, 2015).

- **Project Name: Reduction of Short Lived Climate Pollutant (SCLP) from Oil & Gas Operations**

Duration: 2014 - 2015

Budget: \$400,000

Under the Climate and Clean Air Coalition (CCAC) Oil and Gas Initiative, Canada led the development and implementation of a multilateral demonstration project with two companies (Pacific Exploration and Mansarovar). This project focused on reducing methane and black carbon emissions from flaring and venting practices. Results clearly indicated that SLCPs could be minimized or eliminated through the implementation of innovative technologies that both decrease black carbon emissions and conserve non-renewable energy in a cost-effective manner. For example, technologies deployed at one oil terminal and gas processing facility resulted in savings of \$53 million annually and an immediate return on investment. This project builds on a previous Canadian contribution through which the Petroleum Technology Alliance Canada (PTAC)

delivered technical advice to Colombia for the development of implementable mitigation actions in the Oil and Gas Sector(Government of Canada, 2016).

European Union Caribbean Forum Economic Partnership Agreement

This section discusses any cooperative and capacity-building efforts between the EU and CARIFORUM states, that were carried out to tackle the issues discussed and explored during the sustainability impact assessment process. The EU funds these projects and cooperative efforts through its European Development Fund (EDF) and the Caribbean Regional Indicative Program (CRIP). Information on these projects was sourced from the European Commission International Cooperation and Development website (https://ec.europa.eu/europeaid/node/22_en).

Environmental Impacts

-Land use, Watersheds and Coastal ecosystems:

Project Name: Waitukubuli National Trail - Discover Nature for Heritage Development

Duration: Feb 2007 – Dec 2011

Location: Dominica

The programme was designed to contribute to Dominica’s ecological enhancement and preservation program, as well as to encourage economic development and social integration.

The Waitukubuli National Trail is the Caribbean’s first long distance walking trail, which covers 184 km in 14 sections of some of the best hiking in the Caribbean, spanning the communities of Scott’s Head in the south, to the Cabrits National Park in the north. It crosses through National

Parks, local communities, farm lands, forest reserves, coastal areas, and the acclaimed Morne Trois Pitons National Park, the UNESCO natural World Heritage Site.

-Use of Natural Resources:

Project Name: Barbados Public Sector Smart Energy Program

Duration: Nov 2013 – Oct 2016

Budget: \$7.6 m

Location: Barbados

The main objective of this program was to promote and implement the use of Renewable Energy and Energy Efficiency measures through the creation of the Public Sector Smart Energy (PSSE) Programme. Nearly 90 percent of the energy consumed in Barbados comes from imported oil. According to government data, the fuel import bill is about 6 percent of GDP, equivalent to the country's spending on education. Ultimately, the project will help to reduce Barbados' fossil fuel dependency, promote sustainable energy and therefore contribute to the country's competitiveness. Barbados will replace almost all its public street lights with energy efficient lamps, retrofit at least 12 government buildings with solar power systems, and deploy energy efficiency and conservation technologies throughout the public sector. This project is still under implementation and has not been completed yet, even though the EU's funding period for the project ended in October 2016.

Project Name: Capacity building in Applied Renewable Energy Technologies in Guyana and Suriname

Duration: Oct 2013 – April 2017

Location: Guyana and Suriname

This project was initiated to improve overall, the universities' capacity to develop and deliver educational programs and courses in renewable energy with specific emphasis on hydropower, biomass, solar and wind energy. It was also established to strengthen the universities' research infrastructure linked to the educational program in renewable energy. One major outcome of this project is the increased capacity of university graduates to review and recommend relevant policy and legislative structures that would facilitate the use of renewable energy sources by public and private entities.

-Pollution, waste-water and solid waste:

Project Name: Water Supply and Sanitation Infrastructure Improvement Programme (WSSIIP)

Duration: July 2014 – July 2019

Budget: \$14.8 m

Location: Guyana

The general objective of the Program is to improve efficiency, quality and sustainability of the potable water services and improve sanitation infrastructure in Georgetown and other areas along the coast. The Georgetown water distribution network extends to and covers over ninety-five percent of the City. The pipe network is in a very poor condition due to age, internal

incrustation, breakage and corrosion. This contributes to unreliable water distribution system with respect to pressures, supply and water quality. The inflow of dirty water into the pipes through cracks and breakages further compromises the system. The specific objectives of the WSSIIP are to:

1. improve pressure, quality and continuity of the water supply service in Georgetown, Cornelia Ida-De Kinderen and Diamond- Herstelling
2. improve access to adequate sanitation in the program areas;
3. strengthen Guyana Water Incorporated's (GWI) performance in its operational and management practices.

Project Name: Capacity Building in Drinking Water Supply in Suriname

Duration: August 2012 – August 2016

Location: Suriname

The water supply system in Suriname, which relies almost entirely on groundwater extraction, is operating under constant challenges. Lack of financial resources and autonomy, ever increasing demand, limited rehabilitation activities, and insufficient maintenance, have all led to a gradual deterioration of the assets, with levels of non-revenue water (NRW) reaching as high as 45%. For these reasons, there is a need for a complete overhaul and redesign of the water supply system.

This program aims to achieve this by:

-Improving efficiency in management practices and system maintenance of water treatment and distribution network by the Suriname Water Ministry.

-Enhancing water resources protection to secure safe, healthy and sustainable drinking water services by the Suriname Water Ministry.

-Upgrading of infrastructure for water quality testing and analysis by the Suriname Water Ministry

Social Impacts

-Employment, Wages and Poverty:

Project Name: Promotion of Agribusiness development in Northern Belize

Duration: Jan 2015- June 2017

Location: Belize

The overall objective of this intervention is to reduce poverty and improve the living standards of the rural population in the northern districts of Corozal and Orange Walk. This will be achieved specifically by facilitating commercial agriculture-based enterprises to improve income and employment, by strengthening value chains and productivity of onion, honey and sheep production. The intervention will target key constraining factors that prevent small-scale farmers from maximizing production and earnings from onion, sheep and honey production; as well as increasing value chain efficiency in the rural communities of Orange Walk and Corozal. Strengthening the overall value chains will in turn result in improved market accessibility and coverage for farmers' products and improved earning potential.