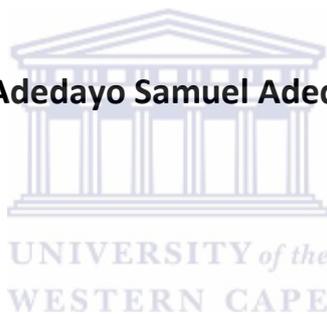


Anticipating Pressing Issues in Trade and Climate Change Policies: A Critical Analysis of Border Carbon Adjustment Measures with WTO Law

Mini-thesis submitted in partial fulfillment of the requirement for the award of the Master of Laws (LLM) Degree in International Trade and Investment Law in Africa of the Faculty of Law, University of the Western Cape, Cape Town, South Africa

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13 May 2011

DECLARATION

I, **Adedayo Samuel Adedeji**, do hereby declare that this research is my original work and that to the best of my knowledge and belief; it has not been previously, in its entirety or in part, been submitted to any other university or institution for a degree or diploma. Other works cited or referred to are accordingly acknowledged. It is in this regard that I hereby present it in partial fulfillment of the requirements for the award of LLM Degree in International Trade and Investment Law in Africa. Errors or omissions, if any, shall remain my sole responsibility.

Signed.....

Date.....



This mini-thesis has been submitted for examination with my approval as the designated Supervisor

Signed.....

Professor Tobias van Reenen
University of the Western Cape

Date.....

DEDICATION

I dedicate this mini-thesis to my lovely parents Chief Mr. and Chief Mrs. Adedeji for their teachings and encouragements that has brought me this far in life. Words can't really express how grateful I am. Both of you have been my life - long inspiration.



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First and foremost, I am grateful to God for giving me life in abundance, for the nature that surrounds me, for the birds that sing to me a new song each morning, for the fish of the sea and the animals of the wild, with whom I proudly share this universe, and for my fellow human beings, with whom I share the tribulations and jublations of this modern life.

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KEY WORDS

Border Carbon Adjustments; Border Tax Adjustment; Carbon Tax; Climate Change; Regional Trade Agreements; General Agreement on Tariffs and Trade (GATT); International Trade; Competitiveness concern; Carbon leakage; Kyoto protocol; World Trade Organisation (WTO); United Nations Framework Convention on Climate Change (UNFCCC)



LIST OF ACRONYMS

AB	Appellate Body
BCAs	Border Carbon Adjustments
BTA	Border Tax Adjustment
EU	European Union
GATT	General Agreement on Tariffs and Trade
GHG	Greenhouse Gas
IPCC	Intergovernmental Panel on Climate Change
LDCs	Least Developed Countries
OECD	Organisation for Economic Co-operation and Development
PPMs	Process and Production Methods
RTA	Regional Trade Agreement
UNEP	United Nations Environmental Program
UNFCCC	United Nations Framework Convention on Climate Change
US	United States of America
WTO	World Trade Organisation



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CHAPTER ONE

Introduction

1.1 Introduction and background to the research

Global warming, and the resultant climate change, is one of the greatest challenges facing international trade.¹ Altered weather patterns will re-shape important sectors of economic activity, such as agriculture, fisheries, and tourism.² According to the Fourth Assessment Report of the Intergovernmental Panel on Climate Change (IPCC), '[w]arming of the climate system is unequivocal, as is now evident from observations of increases in global average air and ocean temperatures, widespread melting of snow and ice, and rising global average sea level'.³ It is estimated that over the last century the global average surface temperature has increased by about 0.74°C.⁴ As greenhouse gas emissions (GHG) and temperatures increase, the impacts from climate change also increase and intensify.⁵ Developing and least developed countries, and particularly the poorest and marginalised populations within these countries, will generally be the most adversely affected by the impacts of future climate

¹ It is important to note that there is a difference between global warming and climate change, although they are often used interchangeably. Global warming refers to the increase of the earth's average surface temperature, due to a build-up of greenhouse gases in the atmosphere, while climate change is used in a broader context that refers to a long-term changes in climate, including average temperature and precipitation.

² WTO-UNEP Report 'Trade and Climate Change' A Report by the United Nations Environment Program and the World Trade Organisation, (2009) 64 available at http://www.wto.org/english/res_e/booksp_e/flyer_trade_climate_change_e.pdf (accessed 15 November 2010) (hereafter WTO-UNEP Report). Climate change can further affect international trade in two ways. First, climate change may alter countries' comparative advantages and lead to shifts in the pattern of international trade. This effect will be stronger on those countries whose comparative advantage stems from climatic or geophysical factors. Countries or regions that are more reliant on agriculture may experience a reduction in exports if future warming and more frequent extreme weather events result in a reduction in crop yields. Second, climate change may increase the vulnerability of the supply, transport and distribution chains upon which international trade depends.

³ IPCC Report 'Intergovernmental Panel on Climate Change' Fourth Assessment Report of the Intergovernmental Panel on Climate Change, (2007) 30 available at http://www.ipcc.ch/pdf/assessment-report/ar4/syr/ar4_syr.pdf (accessed 18 December 2010) (hereafter IPCC Report).

⁴ WTO-UNEP Report (2009) vii.

⁵ IPCC Report (2007) 30.

change and be the most vulnerable to effects, because they are less able to adapt than developed countries and their populations.⁶

There is a nexus between trade and climate change. By enabling world-wide consumption of fossil fuels and emissions-intensive products, trade has negatively affected climate and continues to do so.⁷ The links between climate change policy and international trade regulation are even tighter. Climate change policy, pursuing climate mitigation and adaptation goals, might need to use trade-restrictive measures, which might even be authorised by a future international climate agreement.⁸ At the same time, trade-related measures of climate change policy have to comply with World Trade Organisation (WTO) law.⁹ Climate change, for its part, is expected to substantially influence trade, especially with respect to agricultural products.¹⁰ Moreover, the increase in global trade has significant environmental effects.¹¹ These include: the consumption (and depletion) of natural resources, such as fish, wood and minerals; pollution stemming from extraction and manufacturing processes; the generation of wastes from manufacturing processes and consumed goods; and, of course, the vast usage of energy in the conveying and transportation of goods.¹² In response to these threats, the conference of the parties of the UN Framework Convention on Climate Change (UNFCCC), by its decision 1/CP.13 (the Bali Action Plan), launched negotiations to enable the full, effective and sustained

⁶ WTO-UNEP Report (2007) viii.

⁷ Holzer K 'Trade and Climate Change Interaction: Dealing with WTO Law Inconsistencies of Carbon Related Adjustment Measures' Research paper (2010) 1 available at http://stockholm.sgir.eu/uploads/Holzer_Working%20paper_23sept.pdf (accessed 9 January 2011).

⁸ Holzer K (2010) 1.

⁹ Holzer K (2010) 1.

¹⁰ Holzer K (2010) 1.

¹¹ WTO-UNEP Report (2009) 49-50. This is mainly through three effects – scale, composition and technique effect that trade and climate change linkages are determined. Increase in the level of trade and trade liberalisation will certainly lead to an increase in the scale of production and the resultant effect will be an increase in the extent of the GHG emissions. This is referred to as the 'scale effect'. Trade opening changes the share that each sector represents in a country's production in response to changes in relative prices, resulting in the expansion of some sectors and the contraction of others. The consequent increase or decrease of GHG will depend on whether the emission-intensive sectors are expanding or contracting. This is termed the 'composition effect'. Related to this concept is the 'technique effect': Trade liberalisation can also improve the methods by which goods and services are produced.

¹² Feris L 'Multilateral trade policies and measures in post-Kyoto structures' in Drapers P & Mbirimi I (eds) *Climate Change & Trade : The Challenges for Southern Africa* (2010) 101-102.

implementation of the UNFCCC through long-term co-operative action, up to and beyond 2012.¹³ While the Bali Action Plan did not agree on specific numbers in order to cut GHG emissions, there was a strong consensus for a regime beyond 2012 stemming from both developed and developing countries, and many countries agreed that such a regime should employ 'deep cuts in global emissions' and that developed country emissions must fall 10-40 per cent by 2020.¹⁴ Recently, delegates at the Cancun Conference produced a package dubbed the 'Cancun Agreements'. Delegates agreed to aspects of a global framework to help developing countries curb their carbon output and cope with the effects of climate change, but they postponed the question of precisely how industrialised and emerging economies will share the task of making deeper GHG emissions cuts.¹⁵

The current climate change regime does not prescribe specific policies, but leaves it up to parties to decide how they will achieve their commitments. This creates policy space for countries to implement a range of both multilateral measures prescribed by the climate change regime and domestic measures. A number of these measures are trade-related or have the potential to impact on trade.¹⁶ Developed countries have taken advantage of this policy space by proposing the imposition of climate-related tariffs, often called border tax adjustments (BTAs) or border carbon adjustments (BCAs).¹⁷ In theory, these adjustments, comprising either a tax on imports or a rebate for exports, would offset any competitive advantage other countries would gain through the absence of carbon constraints.¹⁸ The motivation for BCAs can be looked at from three perspectives: to protect domestic industries from competitive disadvantages due to unequal international carbon prices

¹³<http://unfccc.int/meetings/items/4381.php>. (accessed 5 February 2011).

¹⁴Feris L (2010) 97.

¹⁵<http://www.navhindtimes.in/opinion/failure-cancun-climate-summit> (accessed 12 February 2011).

¹⁶Feris L (2010) 97.

¹⁷ The term BTAs specifically refers to tax measures, but the taxes could be imposed for any reason (including e.g. revenue collection). The term BCAs, on the other hand, applies to measures with a specific purpose – to reduce carbon emissions – but includes any measure imposed at the border aiming at an equalisation policy treatment of the embedded carbon content of like foreign and domestic products, regardless of whether the measure takes the form of a tax or a regulation. This mini-thesis will adopt the term BCAs since this research is concerned with adjustment schemes in the context of climate policy.

¹⁸ Melendez-Ortiz R 'Anticipating pressing Issues in Integration: The trade, climate and sustainable development nexus' (2010) 23 available at

http://www.iadb.org/intal/ICom/30/eng/pdf/i_INTAL_I&T_30_2010_Melendez_Biswas_Jegou.pdf23 (accessed 13 November 2010).

(competitive concern); to prevent the re-location of energy or emission intensive companies from countries with a high carbon price to areas with a low or non-existent price on carbon (carbon leakage concern); and to induce other countries to pursue more ambitious climate policies and join a post 2012 international agreement on climate policy (free riding concern).¹⁹The imposition of these measures to curb climate change creates interesting puzzles in that their imposition by developed countries may conflict with WTO laws. This raises the question of whether the measures can be accommodated under the WTO rules.

1.2 Problem statement

This mini-thesis focuses on the legality or otherwise of BCAs with WTO/GATT law. In addressing the legality question, two distinct issues will be analysed. First, are BCAs categorically impermissible? Secondly, assuming BCAs are not categorically impermissible, how can they be justified within the WTO legal framework?

In principle, border adjustment is an allowed practice under WTO law, provided that certain conditions are met.²⁰ However, BCAs are viewed from the WTO perspective as special measures, because they are not imposed on products directly, but on the process and production methods (PPMs).²¹ The PPMs nature of BCAs makes their legality disputable. The legal status of non-product related PPMs is not clear. The main issues here are the likeness of different PPMs products and the product-process distinction. These issues raise a number of legal questions. For instance: can taxes levied on production methods qualify as indirect

¹⁹Brandi C 'International trade and climate change: Border adjustment measures and developing countries' Briefing paper (2010) available at

[http://www.die-qdi.de/CMS-Homepage/openwebcms3.nsf/\(ynDK_contentByKey\)/ANES-873HC2/\\$FILE/BP%2011.2010.pdf](http://www.die-qdi.de/CMS-Homepage/openwebcms3.nsf/(ynDK_contentByKey)/ANES-873HC2/$FILE/BP%2011.2010.pdf) (accessed 18 December 2010).

²⁰ WTO Working Party Report 'Border Tax Adjustment' A Report of the World Trade Organisation on Border Tax Adjustments, L/3463 (1970) (hereafter Working Party Report). The principal source of clarification on border adjustment is the Report of the Working Party on Border Tax Adjustments which was adopted by the GATT membership on 2 December 1970. While this document is a working party report which merely examines issues and does not purport to have binding legal effect, subsequent to its adoption by the GATT membership it has been cited by various GATT and WTO panels. In paragraph 14 of the report, the working party places a limitation on the types of taxes which are eligible for BTAs. Indirect taxes, such as specific excise duties, sales taxes and cascade taxes and the tax on value added are amenable to border tax adjustments. Thus indirect taxes are taxes that can be passed on to the consumers while direct taxes, such as social security charges or payroll taxes, are not eligible for border tax adjustments.

²¹Holzer K (2010) 7.

taxes and thus be adjusted? Or, can two PPMs-non-identical products be considered not like? In other words, is it possible to treat products differently depending on the amount of GHGs emitted during their production?²²

In addressing these issues, there are several provisions under the GATT on which this thesis will focus. First, this research examines the provision of Article II: 2 (a) of the GATT, which is to the effect that WTO members may impose on imports ‘a charge equivalent to an internal tax imposed consistently with the provisions of paragraph 2 of Article III in respect of the like domestic product or in respect of an Article from which the imported product has been manufactured or produced in whole or in part’. Although this provision allows WTO members to impose BTAs on imports in respect of taxes and other charges imposed at a prior stage, the provision raises the issue of whether GATT Article II: 2 (a) should be interpreted along the lines that only taxes imposed on ‘physically incorporated inputs’ are eligible for adjustment on the import of the ‘like’ final product.

Secondly, this mini-thesis examines the provision of Article III: 2 of the GATT which prohibits discriminatory taxation against foreign ‘like products’ or ‘directly competitive or substitutable products’. In case of the discriminatory taxation against foreign ‘like products’, taxes applied to the imported products in excess of the domestic like products will be inconsistent with GATT Article III: 2. While no legal definition of ‘likeness’ exists, the Appellate Body (AB) in the *Japan–Alcoholic Beverages*²³ case listed factors that determine likeness. These factors included the product’s end use in a given market; consumers’ tastes and habits; the product’s properties, nature and quality; and the product’s tariff classifications. The AB has made it clear that the concept of likeness is one that needs to be addressed on a case-by-case basis; the four criteria are simply tools to assist in the task of sorting and examining the relevant evidence, and do not constitute a closed list of criteria that determine the legal characterisation of products.²⁴ The main crux of this provision as it relates to BCAs is whether products may be considered ‘unlike’ because of differences in the

²²Holzer K (2010) 7.

²³ Appellate Body Report *Japan–Taxes on Alcoholic Beverages*, WT/DS8/AB/R, WT/DS10/AB/R, WT/DS11/AB/R, adopted 1 November 1996, DSR 1996: I, 97 (hereafter *Japan–Alcoholic Beverages II*).

²⁴*Japan–Alcoholic Beverages II* p. 20.

way in which they have been produced (PPMs) even if the physical characteristics of the final product remain identical.

Thirdly this mini-thesis examines Article I of the GATT, which provides for the Most-Favoured-Nation (MFN) principle. This principle is to the effect that any advantage granted by any member to any product originating in or destined for any other country shall be accorded immediately and unconditionally to the like product originating in the territories of all WTO members. This requirement is violated if BCAs regulation imposes requirements on the importation of industrial products from a WTO member that does not engage in the post-Kyoto regime, while such a measure is not imposed on the 'like product' from another state. This principle is particularly relevant to BCAs if the implementing countries take a country-based approach, basing the distinction on national origin rather than environmental concern.²⁵

Assuming BCAs conflict with any of the above-mentioned Articles, can they be justified under the general exception provided for by Article XX? Two exceptions are of particular relevance to the protection of the environment: paragraphs (b) and (g). According to these two paragraphs, WTO members may adopt policy measures that are inconsistent with GATT disciplines, but necessary to protect human, animal or plant life or health (paragraph(b), or, related to the conservation of exhaustible natural resources, paragraph(g)). GATT Article XX consists of two cumulative requirements. For a GATT inconsistent environmental measure to be justified under Article XX, a member must perform a two-tier analysis proving first that its measure falls under at least one of the exceptions (there are ten exceptions, including paragraphs(b) and (g)) and secondly that the measure satisfies the requirement of the chapeau of Article XX, i.e. that it is not applied in a manner which would constitute 'a means of arbitrary or unjustifiable discrimination between countries where the same conditions prevail', and is not 'a disguised restriction on international trade'. However, the crux as it

²⁵Kommerskollegium Report 'Climate measures and trade: Legal and economic aspects of border carbon adjustment' A report by the Sweden National Board of Trade (2009) 8 available at http://www.kommers.se/upload/Analysarkiv/In%20English/Report%20Climate_Measures_and_Trade.pdf(accessed 10 February 2011).

relates to BCAs is whether countries proposing the imposition of BCAs can satisfy this requirement so as to enable them to justify the imposition of the measure.²⁶

Finally, this research work examines the likely institutional solutions within the WTO and/or UNFCCC which will provide a long-lasting institutional solution to the likely conflict of BCAs with WTO rules. This is premised on the fact that justification under Article XX can only be achieved through litigation between the parties concerned and this implies that the likely violation of WTO rules will have to be resolved anew each time.²⁷ Therefore, there needs to be a long-lasting institutional solution to the likely violation of WTO rules by the implementation of BCAs measures.

1.3 Research question

The main research question that this study seeks to answer is whether BCAs measures can be justified within the WTO/GATT legal framework.

In answering the main question, the following questions will be answered:

- i. What are BCA measures?
- ii. What are the legal requirements for the compatibility of BCAs measures under the GATT/WTO rules?
- iii. What are the ways of achieving compatibility under the GATT/WTO provisions?
- iv. What are the likely institutional solutions within the WTO and/or UNFCCC that can be adopted to address the possible conflict of BCAs measures with WTO rules?

1.4 Research hypothesis

This mini-thesis argues that the imposition of BCAs will no doubt be faced with some constraints under the existing WTO legal framework, but may, however, be legally permissible under the general exception clause. This mini-thesis further argues that

²⁶ The imposition of BCAs may, however, be justified under WTO law depending on how they are structured by the implementing countries. It can be argued that one of the objectives of BCAs is to control carbon leakage and ultimately decrease carbon consumption on a global level and that this makes their imposition justifiable under article XX (g) of the GATT. An in-depth legal analysis is contained in Chapter Three.

²⁷ There are different institutional solutions and they include: first, to initiate negotiations among WTO members to reach an understanding or possibly enter into agreement on BCAs; secondly, to adopt a protocol or resolution on trade-related climate policy measures among the parties to the UNFCCC; thirdly, the establishment of a joint WTO-UNFCCC working group on climate-related border measures.

Regional Trade Agreements (RTAs) can be adopted as an institutional response to address the likely violation of WTO rules by BCA measures.

1.5 Rationale for the research

Climate change is a global challenge that requires a global answer. Therefore it represents more than a traditional environmental challenge that can be dealt with by specialised negotiators and environmental agencies alone. It will have, and already has had, significant impacts on all of society, including the economy.

In light of this, it is imperative to research on the unilateral measures employed by states to mitigate the effects of climate change, considering its economic and environmental implications.

However, the main objective of this mini-thesis is to critically analyse, based on the WTO jurisprudence, the legality of BCAs under the existing WTO legal framework and to provide some food for thought for future discussions. This analysis is imperative because both the UNFCCC and WTO agreement entail a set of principles that oppose the use of unilateral trade measures that constitute a means of arbitrary or unjustifiable discrimination or disguised restrictions on international trade.²⁸

This mini-thesis also seeks to examine likely institutional solutions within the WTO or UNFCCC which will provide a long lasting solution to the likely conflict with WTO rules that may arise from the implementation of BCAs measures.

1.6 Research methods

The approach to be adopted in this mini-thesis is one of descriptive, analytical and critical assessment. The descriptive approach will be applied to describe the existing factual situation. The analytical approach will be used to analyse the GATT/WTO legal framework on border

²⁸ In accessing whether border measures are protectionist in nature or not, the following questions have to be considered. First, how compatible are they with the International regulation on trade? Secondly and more importantly, will BCAs indeed achieve their main objective, which is to lower the GHG emissions of trading partners? Thirdly, are there more efficient ways (i.e. without distorting trade) of bringing about this outcome?

measures to examine whether BCAs measures are accommodated within the GATT/WTO legal framework. The analytical approach will also entail an analysis of trade and environment disputes which have been decided by the WTO adjudicative bodies. Lastly, the critical assessment approach will be used to assess the various institutional approaches available to address the likely violation of GATT rules by the implementation of BCAs measures.

Intensive library research and a desk-top literature based review will be adopted. This will entail gathering and analysing available literature from the library and the internet. The primary sources of information will include the GATT, the Kyoto Protocol, the UNFCCC, the WTO Appellate Body and Panel Reports, while the secondary sources of information will include journal articles, working papers, briefing papers, textbooks, and reports and papers from other authoritative sources.

1.7 Significance of study

First, this mini-thesis aims at highlighting the linkages between trade and climate change and also the impact of climate change on the trade of African countries. This study is relevant considering the negative impact future climate change may have on the trade of African countries and on the flow of international trade generally.

Secondly, the interpretation of Article III of the GATT as to what constitutes 'like products' notwithstanding differences in the carbon emitted during production is still very contentious; so too is the interpretation of Article XX as to whether BCAs can be justified under the environmental exceptions clauses of GATT Article XX, as a measure 'necessary to protect human, animal or plant life or health' (paragraph (b)), or as a measure 'relating to the conservation of exhaustible natural resources' (paragraph (g)). Research into this controversial area is also very relevant considering that no climate-related dispute has ever been adjudicated by the WTO adjudicative bodies.

This mini-thesis would also serve as contribution to the general jurisprudence of international trade law and as a point of academic reference for students and researchers.

1.8 Chapter structure

Chapter One is an introductory chapter; it contains: the introduction to the mini-thesis, the problem statement, the research question, the rationale for the research, the significance of the research and the research methods.

Chapter Two is divided into four parts. The first part discusses the current state of knowledge of climate change. The second part traces the multilateral response to climate change and highlights the successes so far in reaching an international agreement on climate change. The third part examines the linkages between climate change and trade. The fourth part examines the impact of climate change on trade in Africa by highlighting the various sectors that will be adversely affected by the impact.

Chapter Three examines the legality of BCAs under WTO law and explores the likely constraints that WTO law places on the implementation of such measures. This chapter also analyses key WTO disputes relating to trade and environment.

Chapter Four explores the likely institutional solutions within the WTO and UNFCCC that can be adopted to address the problem of inconsistency of BCAs measures with the WTO rules. This chapter highlights the available options and their advantages and disadvantages.

Chapter Five sets out conclusions derived from the research and makes possible recommendations.

CHAPTER TWO

Current knowledge of climate change and its impact on trade

2.1 Introduction

Debates on climate change and trade have become intertwined over the last few years. The reasons for this can be viewed from two perspectives. First, there is an undeniable link between economic growth, international trade and carbon emissions. Any attempt at dealing with climate change requires changes in growth and trade patterns. Secondly, an important element of climate change mitigation and adaptation involves the dissemination and transfer of technology, which comes under the domain of international trade.²⁹

However, as countries focus on addressing the likely impact of climate change, trade remains largely uncharted territory. Sectors that provide the greatest trade potential for many African countries, such as agriculture, tourism and fishing, will be most affected by the impact of climate change.³⁰



This chapter begins with an overview of the current state of knowledge on climate change. This is followed by an overview of the multilateral responses to address climate change. This overview examines the various multilateral efforts adopted by states to address climate change. The chapter then further examines the linkages between trade and climate change, and the final section of the chapter discusses the impact of climate change on the trade of African countries.

²⁹ Nair S 'Unilateral carbon border measures: effectiveness and alternatives' in Mikic M (ed) *Rising Non-Tariff Protectionism and Crisis Recovery* (2010) 137.

³⁰ Kamal Gueye M, Hepburn J, Sugathan M *et al* 'Climate adaptation and trade: Key challenges and options for agriculture in small developing countries' in *Climate and Trade Policies in a Post-2012 World* (2009) 43.

2.2 Background on climate change

Climate change looms as a defining issue of the 21st century, pitting the potential disruption of our global climate system against the future of a fossil-fuel based economy. The possible environmental consequences are overwhelming, as are the measures that may be needed to mitigate or avoid them.³¹ Yet there is substantial disagreement about the precise nature of the threats posed by climate change and about the appropriate use of the law to respond to climate change.³² The Stern Review, considered by many as the most authoritative study on the economics of climate change, has calculated that the impacts of unabated climate change would be equivalent to a loss of at least 5 per cent of global gross domestic product (GDP). This led Stern to conclude that climate change is the 'greatest market failure the world has ever seen'.³³ As United Nations Secretary-General Ban Ki-Moon aptly noted, climate change is 'the defining challenge of our age'.³⁴ According to the Fourth Assessment Report of the Intergovernmental Panel on Climate change (IPCC), climate change:

[R]efers to a change in the state of the climate that can be identified (e.g. using statistical tests) by changes in the mean and/or the variability of its properties, and that persists for an extended period, typically decades or longer. It refers to any change in climate over time, whether due to natural variability or as a result of human activity.³⁵

The primary cause of global warming is the emission of greenhouse gases (GHGs) stemming from human activities.³⁶ The warming effect of the GHGs, called the 'greenhouse effect' or 'natural greenhouse effect', results in the average surface temperature being + 14^oC. Two gases, carbon dioxide (CO₂) and water vapour, are responsible for most of the greenhouse

³¹Ruhl JB, Nagle JC, Salzmann J *et al* *The Practice and Policy of Environmental Law* 2 ed (2010) 649 (hereafter Ruhl JB, Nagle JC & Salzmann J).

³²Ruhl JB, Nagle JC & Salzmann J (2010) 647.

³³Stern, N 'Stern Review: The Economics of Climate Change' (2006) 1 available at <http://siteresources.worldbank.org/INTINDONESIA/Resources/226271-1170911056314/3428109-1174614780539/SternReviewEng.pdf> (accessed 18 November 2010).

³⁴United Nations Secretary-General Ban Ki-Moon's address to the Intergovernmental Panel on Climate Change (IPCC) upon the release of the Fourth Assessment Synthesis Report (2007) available at <http://www.unep.org/Documents.Multilingual/Default.asp?DocumentID=522&ArticleID=5708&l=en>

³⁵IPCC Report 'Intergovernmental Panel on Climate Change' Fourth Assessment Report of the Intergovernmental Panel on Climate Change (2007) 30 available at http://www.ipcc.ch/pdf/assessment-report/ar4/syr/ar4_syr.pdf. (hereafter IPCC Report).

³⁶Rechtschaffen C, Gauna E & O'Neil AC *Environmental Justice Law, Policy & Regulation* 2 ed (2009) 390 (hereafter Rechtschaffen C, Gauna E & O'Neil).

effect.³⁷ The most widespread effect of the GHGs is carbon dioxide, emitted as a result of the combustion of fossil fuel, such as, coal, natural gas, and oil. Other GHGs include methane, primarily from agriculture and landfills; gases used in refrigerants; nitrous oxide, also stemming largely from agriculture and fuel burning; and black carbon, a form of air pollution produced by biomass burning, diesel exhaust and other sources.³⁸

The impacts of climate change are already being felt. Global average temperatures have increased over the past 100 years by about 0.74°C (1.33 °F) and 11 of the most recent 12 years (1995 – 2006) rank among the 12 warmest years since we began keeping records 150 years ago. The current global climate is warmer than it has ever been during the past 500 years, and probably warmer than it has been for more than 1000 years. Moreover, the rate of temperature rise is unprecedented.³⁹ Climate change may also have profound implications for regional conflicts and global security, as millions of residents are displaced from their homes and conflicts develop over increasingly scarce food, water and other natural resources.⁴⁰ One recent analysis concludes that '[c]limate change acts as a threat multiplier for instability in some of the most volatile regions of the world.'⁴¹ Projected climate change will seriously exacerbate already marginal living standards in many Asian, African and Middle Eastern nations, causing widespread political instability and the likelihood of failed states.⁴²

However, despite international concern about global warming and associated climate change, GHG concentrations in the earth's atmosphere are set to increase at an accelerated rate.⁴³ Over the last half century, GHG emissions per person in industrialised countries have

³⁷ Rechtschaffen C, Gauna E & O' Neil AC (2009) 390.

³⁸ Engelbrecht F 'The scientific basis for climate change over Southern Africa' in Drapers P & Mbirimi I (eds) *Climate Change & Trade : The Challenges for Southern Africa* (2010) 127.

³⁹ Rechtschaffen C, Gauna E & O' Neil AC (2009) 390.

⁴⁰ Rechtschaffen C, Gauna E & O' Neil AC (2009) 391.

⁴¹ Rechtschaffen C, Gauna E & O' Neil AC (2009) 391.

⁴² Rechtschaffen C, Gauna E & O' Neil AC (2009) 391-92.

⁴³ Engelbrecht F (2010) 128. Engelbrecht noted that If current trends in emission rates persist, the concentration of CO₂ (responsible for most of the enhanced greenhouse effect) will exceed 560 parts per million (ppm) – double its natural concentration – by about 2050. At GHG levels of 550 ppm CO₂ equivalent, the likelihood of exceeding a global temperature increase of 2°C (thought to define dangerous climate change) is high. It has been estimated that GHG concentrations need to stabilise at values of between 400 and 450 ppm (or less) for dangerous climate change to be avoided.

been around four times higher than emissions per person in developing countries, and for the least- developed countries the difference is even greater.⁴⁴

Historically, industrialised countries have produced large amounts of energy-related emissions of carbon dioxide, and their share of responsibility for the present atmospheric concentration of GHGs includes their accumulated past emissions. The members of the Organisation for Economic Co-operation and Development (OECD), which are the world's most industrialised countries, are responsible for an estimated 77 per cent of the total GHGs which were emitted in the past. The emissions from developing countries, however, are becoming increasingly significant: it is estimated that between 2005 and 2030, the GHGs levels from non-OECD countries are expected to increase by an average of 2.5 per cent each year, whereas the projected average annual increase for OECD countries is 0.5 percent.⁴⁵

The projections of future climate change and its associated impacts amply illustrate the need for increased efforts focused on climate change mitigation and adaptation. 'Mitigation' refers to policies and options aimed at reducing GHG emissions or at enhancing the 'sinks' (such as oceans or forests) which absorb carbon or carbon dioxide from the atmosphere. 'Adaptation' on the other hand refers to the adjustment in natural or human systems in response to actual or expected climatic stimuli or their effects, which moderates harm or exploits beneficial opportunities.⁴⁶ In other words, mitigation attempts to reduce the rate and magnitude of climate change and its associated impacts, whereas adaptation increases the ability of people or natural systems to cope with the consequences of the impacts of

⁴⁴WTO-UNEP Report 'Trade and Climate Change' A Report by the United Nations Environment Program and the World Trade Organisation (2009) 4-5 available at http://www.wto.org/english/res_e/booksp_e/trade_climate_change_e.pdf (accessed 15 November 2010) (hereafter WTO-UNEP Report).

⁴⁵WTO-UNEP Report (2009) 4-5.

⁴⁶ See generally WTO-UNEP Report (2009) 24. It is important to note that the capacity to adapt and mitigate is dependent on socio-economic and environmental circumstances and the availability of information and technology. However, much less information is available about the costs and effectiveness of adaptation measures than about mitigation measures. The capacity to adapt is dynamic and is influenced by a society's productive base, including natural and man-made capital assets, social networks and entitlements, human capital and institutions, governance, national income, health and technology. It is also affected by multiple climate and non-climate stresses, as well as development policy.

climatic changes, including increased climate variability and the occurrence of extreme weather.⁴⁷

Mitigation and adaptation also differ in terms of timescales and geographical location. Although the costs of emission reductions are often specific to the location where the reduction scheme is brought into action, the benefits of mitigation are global, since emission reductions contribute to decreasing overall atmospheric concentrations of GHGs, regardless of the geographical location of the emission-reduction activities. Moreover, mitigation benefits are long-term because of the long atmospheric lifetimes of most GHGs and the resulting time lapse between the moment of emission and the response by the climate system.⁴⁸ Adaptation, by contrast, is characterised by benefits in the short-to-medium term, and both the costs and the benefits are primarily local.⁴⁹

2.3 Multilateral response to climate change

Following the adoption of numerous declarations at regional conferences calling for various measures to be taken to reduce the generation of CO₂ and other GHGs, the elements of a climate change convention were first considered by a meeting of experts in Ottawa in 1989, and by the Intergovernmental Panel on Climate Change in 1990.⁵⁰ This call for international co-operation led to the initiation of negotiations in 1990 by UN General Assembly resolution 45/212, which was concluded in 1992 with the adoption at the Rio Conference (commonly referred to as the Earth Summit) of a Framework on Climate Change.⁵¹ The Earth Summit proved to be groundbreaking on many fronts: it was one of the first global dialogues on sustainable development and led to the Rio Declaration on Environment and

⁴⁷ WTO-UNEP Report (2009) 24. Both bottom-up and top-down studies indicate that there is high agreement as to, and much evidence of, substantial economic potential for the mitigation of global GHG emissions over the coming decades that could offset the projected growth of global emissions or reduce emissions below current levels.

⁴⁸ WTO-UNEP Report (2009) 25.

⁴⁹ WTO-UNEP Report (2009) 25.

⁵⁰ Birnie P, Boyle A & Redgwell C *International Law and the Environment* 3 ed (2009) 356 (hereafter Birnie P, Boyle A & Redgwell C).

⁵¹ Birnie P, Boyle A & Redgwell C (2009) 356.

Development.⁵² The Earth Summit was also crucial from a climate change perspective, as it led to the adoption of the United Nations Framework Convention on Climate Change (UNFCCC) - the first global effort to address climate change.⁵³ The UNFCCC, which entered into force in March 1994, represented a groundbreaking response to climate change by creating a general framework for action, but did not create legally-binding commitments for reducing GHG emissions.

The ultimate objective of the UNFCCC is the 'stabilization of greenhouse gas concentrations in the atmosphere at a level that would prevent dangerous anthropogenic interference (i.e. resulting from human activity) with the climate system.'⁵⁴ The UNFCCC elaborates a number of principles to guide parties in reaching this objective: for instance, the UNFCCC calls on parties to employ precautionary measures to anticipate, prevent or minimise the causes of climate change and to mitigate its adverse effects.⁵⁵ Where there are threats of serious or irreversible damage, lack of full scientific certainty shall not be used as a reason for postponing such measures, taking into account that policies and measures to deal with climate change should be cost-effective so as to ensure global benefits at the lowest cost possible.⁵⁶ The UNFCCC also reflects the principle of 'common but differentiated responsibilities', a principle which recognises that even though all countries have a responsibility to address climate change, they have not all contributed to the same extent to causing the problem, nor are they all equally equipped to address it. Accordingly, the UNFCCC places the initial burden of GHG emission reductions on the most industrialised countries, given their disproportionate contribution to climate change since the beginning of the industrial revolution.⁵⁷

⁵² WTO-UNEP Report (2009) 69.

⁵³ WTO-UNEP Report (2009) 68.

⁵⁴ Article 2 UNFCCC.

⁵⁵ Article 3(3) UNFCCC.

⁵⁶ Article 3(3) UNFCCC.

⁵⁷ Article 3 of the UNFCCC states that 'parties should protect the climate system for the benefit of future and present generations of humankind on the basis of equity and in accordance with their common but differentiated responsibility and respective capabilities. Accordingly, developed countries should take the lead in combating climate change and the adverse effects thereof'. The word principle is notably absent from the text of Article 3, as the US, with support from other industrial nations, opposed the inclusion of the principle in the formation of the UNFCCC as it added uncertainty to treat obligations. Its inclusion is thus more a guiding ideal than prescriptive principle. While not a legal obligation in itself, the ideal of common but differentiated

In view of the non-binding commitments under the Earth Summit, there were increased calls for a supplementary agreement with legally-binding commitments for reducing GHG emissions. This increased political momentum ultimately led to the signing of the Kyoto Protocol in 1997. The Kyoto Protocol requires industrialised countries to meet agreed levels of emission reductions over an initial commitment period that runs from 2008-2012.⁵⁸ It is important to note that the existing regime in the form of the Kyoto Protocol does not prescribe the measures for the stabilising and reducing of GHGs. However, it imposes individual caps on the emissions of Annex I countries.⁵⁹ According to Article 4(2) (a) of the UNFCCC, Annex I parties are allowed to implement emissions reduction measures jointly with other parties. In achieving this, the Kyoto Protocol provides for three flexibility mechanisms, i.e. Joint Implementation (JI)⁶⁰, the Clean Development Mechanism (CDM)⁶¹ and the emissions trading also known as 'the carbon market'⁶².

Furthermore, the Kyoto Protocol has some advantages and disadvantages. Some of the advantages of the Kyoto Protocol include: first, it provides some flexibility for nations to meet their national emission targets - their commitments - in any way they want. In other words, Article 2 of the Protocol recognises domestic sovereignty by providing for flexibility at the national level. Secondly, the Kyoto Protocol has the appearance of fairness in that it

responsibility has provided the legal and philosophical basis for the existing legal obligations including the instruments designed to achieve the objectives of the Kyoto Protocol. available at <http://www.climateoanalysis.org/wp-content/uploads/2009/12/kmcmamus/pdf> (accessed 22 December 2010).

⁵⁸ The major distinction between the UNFCCC and the Kyoto Protocol is that while the UNFCCC encouraged industrialised countries to stabilise GHG emissions, the Kyoto Protocol commits them to do so. available at http://unfccc.int/kyoto_ps/2830.phprotocol/item (accessed 20 January 2011).

⁵⁹ Annex I parties refers to the industrialised countries which undertook to 'return their GHG emissions to the levels by the year 2000' under Article 4.2 (a) and (b) of the United Nations Framework Convention on Climate Change. They also adopted emission reduction targets for the 2008-12 periods under the Kyoto Protocol. They include members of the OECD, the EU and 14 countries with 'economies in transition'

⁶⁰ Article 6 Kyoto Protocol. This allows a country with an emission reduction or limitation commitment under the Kyoto Protocol (Annex B party) to earn emission reduction units (ERUs) from an emission-reduction or emission removal project in another Annex B party, each equivalent to one tone of CO₂, which can be counted towards meeting its Kyoto Protocol target.

⁶¹ Article 3 Kyoto Protocol. The purpose of the CDM is to assist parties not included in Annex I in achieving sustainable development and in contributing to the ultimate objective of the UNFCCC, and to assist parties included in Annex I in achieving compliance with their quantified emission limitation and reduction commitments under Article 3.

⁶² Article 17 Kyoto Protocol. This allows countries that have emission units to spare – emissions permitted them but not 'used' – to sell this excess capacity to countries that have target.

focuses on the wealthiest countries and those responsible for the dominant share of the current stock of anthropogenic GHGs in the atmosphere. This is consistent with the principle enunciated in the UNFCCC of common but differentiated responsibilities and respective capacities.⁶³ Thirdly, the fact that the Kyoto Protocol was signed by more than 180 countries and subsequently ratified by a sufficient number of Annex I countries for it to come into force speaks to the viability of the agreement, if not to the feasibility of all countries actually achieving their targets. Nevertheless, the disadvantages include: first, some of the world's largest emitters are not constrained by the protocol. The United States (US) - until recently the country with the largest share of global emissions – has not ratified, and is unlikely to ratify, the agreement. Also, some of the largest and more rapidly-growing economies in the developing world do not have emission targets under the agreement.⁶⁴ Another weakness of the Kyoto Protocol is associated with the relatively small number of countries being asked to take action. This narrow but deep approach may have been well-intended, but one of its effects will be to drive up the costs of producing carbon-intensive goods and services within the coalition of countries taking action.⁶⁵

In 2007, at the 13th UNFCCC Conference of Parties in Bali, Indonesia, parties decided to launch the Bali Action Plan to enable full, effective and sustained implementation of the convention through long-term co-operative action for now and beyond 2012. In terms of this negotiating mandate, a series of negotiating meetings have been scheduled and the process was set to conclude with an agreement in Copenhagen in December 2009.⁶⁶ The purpose of the negotiations was to map out a path beyond the Kyoto Protocol. However, the final outcome, a three page non-binding statement, did not meet this goal,⁶⁷ and basically does not include binding commitments to reduce GHG emissions, or binding agreement by any country to any specific target.⁶⁸

⁶³ Aldy JE & Stavins RN 'Post-Kyoto international climate policy: Implementing architectures for agreement' in Aldy JE & Stavins RN (eds) *Post-Kyoto International Climate Policy: Implementing Architectures for Agreement* (2010) 4-6 (hereafter Aldy JE & Stavins RN).

⁶⁴ These countries include China, India, South Africa, Indonesia, Korea and Mexico.

⁶⁵ Aldy JE & Stavins RN (2010) 4-6.

⁶⁶ http://unfccc.int/meetings/ad_hoc_working_groups/lca/items/4381.php (accessed 15 March 2010).

⁶⁷ Feris L (2010) 101.

⁶⁸ Bacchus J 'Questions in Search of Answers: Trade, Climate, and the Rule of Law' Keynote address (2010) 8 available at

Further, in an effort to reach a post 2012 agreement on climate change, the UNFCCC held a conference from November 29 to December 11, 2010, in Cancun, Mexico. Delegates agreed to aspects of a global framework to help developing countries curb their carbon output and cope with the effects of climate change, but they postponed the harder question of precisely how industrialised and major emerging economies will share the task of making deeper GHG emissions cuts.⁶⁹

While the agreements in Cancun were more than what was expected at the outset, several key issues were dropped in order to reach consensus. Many of these issues relate to trade. Agriculture, which had not been considered to be one of the more difficult issues to negotiate, became inextricably tied to the discussions on bunker fuels.⁷⁰ When it became clear that parties would be unable to overcome their differences on how to manage bunker fuels, the issue was snipped out of the text.⁷¹ Additionally, references to the use of unilateral trade measures such as BCAs were removed, leaving a crucial element of enforcement and regulation unresolved.⁷²

2.4 Climate change and trade linkages

For the last ten years environmentalist and trade-policy communities have engaged in heated debate over the environmental consequences of liberalised trade.⁷³ The debate was originally fuelled by negotiations over the North American Free Trade Agreement and the

http://graduateinstitute.ch/webdav/site/ctei/shared/CTEI/events/TAIT%202/Keynote_Bacchus_Final_Plus_Discussions.pdf (accessed 16 February 2011).

⁶⁹The final conference instrument, dubbed the 'Cancun Agreements', includes decisions under both the UNFCCC and Kyoto Protocol negotiating tracks. Agreements reached included: a shared vision for long term co-operative action; adaptation to climate change; reducing emissions for deforestation and forest degradation in developing countries, and conservation and sustainable management of forests ; technology transfer co-operation and capacity building; climate change mitigation; and finance to support climate action in developing countries. The Cancun Agreements received near universal acceptance with the exception of Bolivia, who described the agreements as 'hollow and false' available at

<http://www.telegraph.co.uk/earth/environment/climatechange/8197785/Cancun-climate-agreement-Analysis-of-the-text.html> (accessed 15 February 2011).

⁷⁰ Bunker fuel is any type of fuel oil used aboard ships. The global nature of the industry makes it very difficult for parties to reach a conclusion on jurisdiction.

⁷¹<http://ictsd.org/i/news/biores/98259/> (accessed 11 March 2011).

⁷²<http://ictsd.org/i/news/biores/98259/> (accessed 11 March 2011).

⁷³ Copeland BR & Taylor MS 'Trade, growth and the environment' (2004) 42 *Journal of Economic Literature* 7 (hereafter Copeland BR & Taylor MS).

Uruguay round negotiations, both of which occurred at a time when concerns over global warming, species extinction, and industrial pollution were rising.⁷⁴ On the one hand, it is argued that trade liberalisation may change the pattern or nature of economic activity by increasing trade in dangerous products such as hazardous waste or chemicals.⁷⁵ On the other hand, there are those who believe this debate is really much ado about nothing, as evidenced by the following:

There is no inherent conflict between high labour and environmental standards in the domestic economy and success in the global economy. In fact, the evidence points strongly to a positive correlation between high standards, high national incomes, and economic openness. Nations that have opened themselves to the global economy tend to grow faster, achieve higher capita incomes, and maintain higher labour and environmental standards. The belief that higher standards can be promoted only through tough language in trade agreements is built on a myth.⁷⁶

The past half century has been marked by an unprecedented expansion of international trade. In terms of volume, trade is nearly 32 times greater than it was in 1950.⁷⁷ By way of comparison, the level of gross domestic product (GDP) worldwide has increased by little more than eight times during the same period. A number of reasons have been given to explain the enormous expansion in world trade. Foremost among these reasons is technological change, which has dramatically reduced the cost of transportation and communications.⁷⁸ A second reason for the expansion in trade is the spread of more open trade and investment policies. Many countries have liberalised their trade regimes through unilateral changes in their national policies, through bilateral or regional trade arrangements, or through multilateral trade negotiations.⁷⁹

In addressing how the opening up of trade has affected GHG emissions, trade economists have developed a conceptual framework to examine how trade opening up may affect the

⁷⁴ Copeland BR & Taylor MS (2004)7.

⁷⁵ Feris L 'Trade and the environment' in Strydom HA & King ND (eds) *Environmental Management in South Africa* 2ed (2009) 269.

⁷⁶ Griswold DT 'Trade, labor, and the environment: How blue and green sanctions threaten high standards' (2001) 10 available at <http://www.cato.org/pubs/tpa/tpa-015b.pdf> (accessed 14 March 2011).

⁷⁷ WTO-UNEP Report (2009) 48.

⁷⁸ WTO-UNEP Report (2009) 48.

⁷⁹ WTO-UNEP Report (2009) 48. The impact of trade and trade liberalisation on climate change is unambiguous; this is based on the fact that increase trade and production undoubtedly lead to increased carbon dioxide emissions.

environment, and this framework serves well in identifying the sorts of impacts that trade policies might have with respect to climate change.⁸⁰ This research work considers four types of effect and they are described below.

2.4.1 Scale effect

Copeland and Taylor define the scale effect as the increase in the value of production, measured in world prices as they were prior to trade opening up.⁸¹ In other words, if there are unemployed resources (labour, capital or land) prior to liberalisation, trade opening will allow greater utilisation of these resources and will thus lead to an expansion in the level of production.⁸² The scale effect will, in itself, have negative climate change impacts; the more goods produced, the more GHGs emitted.⁸³

The scale effect is conceptually different from economic growth, since the latter is a result of capital accumulation, population growth and technological change. Nevertheless, there is a presumption that, in theory, greater trade opening will lead to economic growth in productivity. Given that economic growth is closely linked to energy use, this will magnify the impact on GHG emissions.⁸⁴



2.4.2 Composition effect

This refers to the way that trade opening up causes changes in relative prices and this changes the share that each sector represents in a country's production, resulting in the expansion of some sectors and the contraction of others. The consequent increase or decrease of GHG emissions will depend on whether the emission-intensive sectors are expanding or contracting. Changes in the structure of a liberalising country's production will depend on where the country's 'comparative advantage' (in terms of resources and capacity) lies: if its comparative advantage is in sectors which are less emission-intensive, then trade opening up will lead to lower GHG emissions, but if it is in the more emission-intensive sectors, then

⁸⁰ Cosbey A 'Trade and Climate Change Linkages' Scoping paper (2007) 3 available at http://www.iisd.org/pdf/2007/trade_climate_linkages.pdf (accessed 15 January 2011).

⁸¹ See generally Copeland BR & Taylor MS (2004).

⁸² See generally Copeland BR & Taylor MS (2004).

⁸³ Cosbey A (2007) 3.

⁸⁴ WTO-UNEP Report (2009) 50-1.

liberalisation will lead to greater emissions of GHGs.⁸⁵ As a result, some economies will become more GHG-intensive overall, and some may become less so. From a global perspective this does not necessarily mean that GHG emissions are unchanged. As global income levels increase, the global economy will change to favour those goods that are relatively 'luxurious'. This may be good from a climate change perspective (consumers can afford more solar panels) or bad (consumers can afford more automobiles).⁸⁶

2.4.3 Technique effect

This refers to improvements in the methods by which goods and services are produced, so that the quantity of emissions released during the production process declines.⁸⁷ According to Grossman and Krueger, this reduction in GHG emissions may come about in two ways.⁸⁸ First, more open trade will increase the availability and lower the cost of climate-friendly goods and services. This is particularly important for countries which do not have access to climate-friendly goods and services, or whose domestic industries do not produce such goods and services in sufficient amounts or at affordable prices. Secondly, the increase in income levels that trade opening brings about can lead the general public to demand lower GHG emissions (a cleaner environment is a 'normal' good). Increased incomes or wealth give populations the freedom to be concerned about other aspects of their well-being, including better environmental quality.⁸⁹

2.4.4 Direct effect

The very fact of increased trade, in and of itself, will lead directly to more global GHG emissions from the increased transport of goods. The GHG-intensity of transport varies enormously from marine transport to trucks to air freight, but in the end all modes of transport will have some emissions.⁹⁰

⁸⁵WTO-UNEP Report (2009) 50-1.

⁸⁶Cosbey A (2007) 3.

⁸⁷WTO-UNEP Report (2009) 50-1.

⁸⁸ Grossman GM & Krueger AB 'Environmental Impacts of a North American Free Trade Agreement' in Garber PM (ed) *The US Mexico Free Trade Agreement* (1993) 13-56.

⁸⁹ Grossman GM & Krueger AB (1993) 16.

⁹⁰Cosbey A (2007) 4.

In light of the above linkages, the pertinent question to ask is whether BCA measures fit into the trade and climate change linkage? Given that different economies might have different emission targets in the absence of an international agreement on climate change, unilateral border measures such as BCAs aim to provide market signals which lead to the countries that have less stringent standards adopting standards similar to those in countries where stricter measures are implemented. The objective, of course, is to counter both the GHGs leakage effect and the loss of competitiveness of domestic commodities.⁹¹ The danger, of course, is that these measures could end up being non-tariff barriers or subtle attempts at protectionism. These measures basically aim to interact with the technique and composition effects of trade on climate change.⁹² By forcing the exporting countries to adopt stronger emissions norms, the proposed outcome is that the technique of production will end up being cleaner or more environmentally-friendly. Alternatively, as a result of these measures the composition of production might change in favour of environmentally-friendly goods and services. But the fundamental question is whether this is, in fact, the objective behind the proposed imposition of BCAs and whether they will actually lower GHG emissions.⁹³

Furthermore, the linkages between climate change and trade can also be looked at from the perspective of the policies put in place. Although the trade and climate regimes have different aims and organisation, they do in fact enjoy many common features. Both regimes aim to promote greater economic efficiency in order to enhance public welfare.⁹⁴ Both regimes recognise linkages between the economy and the environment. Both look to the future and advocate actions that, while bringing about short-term adjustment costs, anticipate long-term benefits. Both regimes are worried about free riders and devote considerable attention to securing compliance. Both regimes are deferential to the volitions of developing countries, and follow principles of 'special and differential treatment' or 'common but differentiated responsibilities.' Lastly, both regimes are dynamic works-in-progress, continuing institutional improvements during successive negotiations.⁹⁵

⁹¹ Nair S (2010) 139.

⁹² Nair S (2010) 139.

⁹³ Nair S (2010) 139.

⁹⁴ Charnovitz S 'Trade and Climate: Potential Conflicts and Synergies' Working draft (2003) 1-32 available at http://www.pewclimate.org/docUploads/Beyond_Kyoto_Trade.pdf (accessed on 15 February 2011).

⁹⁵ Charnovitz S (2010) 1-32.

The climate policy focuses on protection (it protects the climate system from negative anthropogenic impacts), whereas the international trade policy promotes liberalisation (it seeks to provide free access of goods and services to a global market).⁹⁶

The linkages can also be considered with regard to the impact of climate change on trade.⁹⁷ At a practical level, climate change is expected to affect production of various commodities, which is the basis of international trade in those commodities.⁹⁸ The impact on international trade might be negative, considering the fact that production of an existing export may no longer be possible due to the changed climate. It could also be positive if the change in production makes it possible to produce new crops or expand production of existing ones. On the other hand, international trade itself can affect climate change indirectly through transportation. International trade can also be a conduit for the transfer of clean technology, which is why there has been a push in the WTO for liberalisation of trade in environmentally-friendly goods and services.⁹⁹

Another aspect of the linkages can be examined from a legal point of view. The WTO has a dispute settlement system whose function is to settle disputes between members. It is reasonable to expect that domestic mitigation measures such as BCAs that may violate the rights of other members under the WTO are likely to be scrutinised for their consistency with the WTO.¹⁰⁰ Finally, in international law there is no hierarchy between the international trade and climate regimes. Both sets of rules have equal status under international law, notwithstanding that they were adopted in different forums.¹⁰¹

⁹⁶Holzer K (2010) 3. As a consequence of the discrepancies in the objectives, proponents of free trade worry that the protection of the climate system will be used as an excuse for protection of domestic industries, whereas environmentalists are afraid that the theory of free trade will be used to maximize profits, totally neglecting environmental needs.

⁹⁷ WTO-UNEP Report (2009) 11.

⁹⁸Mbirimi I 'How might Southern Africa begin to respond to climate change? A synthesis of key findings' in Drapers P &Mbirimi I (eds) *Climate Change & Trade : The Challenges for Southern Africa* 1 ed (2010) 246-276.

⁹⁹Mbirimi I (2010) 262.

¹⁰⁰Mbirimi I (2010) 262-263.

¹⁰¹Holzer K (2010) 3.

2.5 The impact of climate change on trade in Africa

Compared to other regions in the world, Africa's contribution to GHG emissions is low – about 3.5 per cent of the global total.¹⁰² Nonetheless, evidence suggests that Africa as a region is one of the most vulnerable to the impacts of climate change, and this is compounded by the far greater exposure of the region to climatic variation.¹⁰³ In its Fourth Assessment Report, the IPCC notes that it is projected that by 2020 between 75 and 250 million people will be exposed to water stress due to climate change and that in some African countries yields from rain-fed agriculture could be reduced by up to 50 per cent, thereby compromising access to food and exacerbating malnutrition. These severe impacts will inevitably worsen existing vulnerabilities of the African region, which are largely caused by its high dependence on agriculture and natural resources and by the high prevalence of poverty on the continent.¹⁰⁴

However, Africa is an enormous landmass, stretching from about 35°N to 35°S, and the climatic effects are very different according to location within the continent: there is no Africa-wide climate effect. Some regions in Africa will become drier, others wetter, and some regions may derive economic benefit, while most will be adversely affected.¹⁰⁵ Early research has, however, indicated that the most significant climate change that has occurred in Africa is a long-term reduction of rainfall in the semi-arid regions of West Africa in particular.¹⁰⁶

What then are the implications of climate change on trade in Africa, in particular key sectors that constitute the backbone of African trade, such as agriculture, fishing and tourism?

The agriculture sector is a major contributor to the current economy of most African countries, providing about 60 per cent of employment across the continent and, in some

¹⁰² Biacuana G 'Climate change: Case study of Mozambique' in Drapers P & Mbirimi I (eds) *Climate Change & Trade: The Challenges for Southern Africa* (2010) 182.

¹⁰³ Collier P, Conway G & Venables T 'Climate change and Africa' (2008) available at <http://users.ox.ac.uk/econpo/research/pdfsClimateChangeandAfrica.pdf> (accessed 16 February 2011).

¹⁰⁴ Mbirimi I (2010) 246.

¹⁰⁵ Collier P Conway G & Venables T (2008) 3.

¹⁰⁶ Feris L 'Multilateral trade policies and measures in post-Kyoto structures' in Drapers P & Mbirimi I (eds) *Climate Change & Trade: The Challenges for Southern Africa* (2010) 98.

countries, more than 50 percent of GDP.¹⁰⁷ However, higher temperatures will directly change crop yields. The areas suitable for agriculture; the length of growing seasons; and the yield potential, particularly along the margins of semi-arid and arid areas, are all expected to decrease. Many crops in Africa are already grown close to their limits of thermal tolerance. Extreme weather is likely to become more frequent with global warming, creating high annual variability in crop production. More prolonged high temperatures and periods of drought will force large regions of marginal agriculture out of production. The maize crop over most of southern Africa already experiences drought stress on an annual basis. This is likely to worsen with climate change and extend further southwards, perhaps making maize production in many parts of Zimbabwe and South Africa very difficult, if not impossible.¹⁰⁸

Changes in agricultural productivity will exacerbate food security challenges already facing most Africa countries.¹⁰⁹ According to the IPCC report, agricultural prices are expected to increase by up to 20 per cent in the short and medium term. Although it is difficult to pinpoint exactly how much climate change is contributing to this challenge, by 2080 about 768 million people are likely to be malnourished. Sub-Saharan Africa is likely to surpass Asia as the most food insecure region, mostly because of the socioeconomic developments for the different developing regions, but also in part due to climate impacts.¹¹⁰

While agriculture forms the backbone of international trade in Africa, the fishing industry plays an equally important role. The industry is already under severe pressure as a result of over fishing. The effect of climate change will put this industry under further pressure and will further impact on food security in the region, as fish make up a significant part of the food supply in Africa.¹¹¹ Changes in climatic conditions, such as air temperature and

¹⁰⁷ Collier P Conway G & Venables T (2008) 3.

¹⁰⁸ Collier P Conway G & Venables T (2008) 7. Even without climate change, there are serious concerns about agriculture in Africa because of water supply variability, soil degradation, and recurring drought events. A number of countries face semi-arid conditions that make agriculture challenging. Further, development efforts have been difficult to sustain. African agriculture has the slowest record of productivity increase in the world.

¹⁰⁹ Ringler C, Zhu T, Cai X et al 'Climate change impacts on food security in sub-Saharan Africa' Discussion paper (2010) 10 available at <http://www.ifpri.org/sites/default/files/publications/ifpridp01042.pdf> (accessed 15 April 2011).

¹¹⁰ Kamal Gueye M, Hepburn J, Sugathan M et al 'Climate adaptation and trade: Key challenges and options for agriculture in small developing countries' in *Climate and Trade Policies in a Post-2012 World* (2009) 43.

¹¹¹ Feris L (2010) 98.

precipitation, affect fisheries by altering habitat availability or quality, and fisheries' habitats may be affected by: changes in water temperature; the timing and duration of extreme temperature conditions; the magnitude and pattern of annual stream flows; surface water elevations; and the changing shorelines of lakes, reservoirs and near-shore marine environments.¹¹²

Apart from the agriculture and fishing sectors, climate change is also said to have potential impacts for the tourism sector.¹¹³ This sector is one of Africa's fastest-growing industries and is conservation-based, and as such relies on wildlife and water supplies to survive and grow.¹¹⁴ However, recurrent droughts in the past decade have depleted wildlife resources significantly, and climate change may increase the frequency of flooding, drought and land degradation, reducing the viability of recreation activities and wildlife safaris. The permanent loss of such attractions would have a significant impact on investment in tourism. Various indirect impacts may also result from changes in landscape. For instance, the 'capital' of tourism might be affected, leading potential tourists to perceive Africa as less attractive and consequently to seek new locations elsewhere.¹¹⁵ Africa may also face a decline in the sector as a result of changes in weather patterns, which to a very large extent will deprive countries of their natural assets.

Furthermore, the impacts of climate change will also be felt in the energy sector, primarily through losses or changes in hydropower potential for electricity generation and the effects of increased runoff (and consequent siltation) on hydrogenation, and also through changes in the growth rates of trees used for fuel wood. Millions of cubic metres of biomass dependence for the African energy sector are high. This dependence becomes critical, as the source of biomass is derived from the natural regeneration of indigenous natural forests.¹¹⁶ Finally, Africa's reliance on agriculture and fishing is likely to impact on the comparative advantage of countries within the region, setting up the possibility of changes in trade flows

¹¹²Feris L (2010) 99.

¹¹³ WWF-UK Report 'Climate Change and Its Impact on Tourism' A Report Prepared for the World Wide Fund for Nature (1999) available at http://www.wwf.org.uk/filelibrary/pdf/tourism_and_cc_full.pdf (accessed 16 March 2011).

¹¹⁴Feris L (2010) 99.

¹¹⁵Feris L (2010) 99.

¹¹⁶Feris L (2010) 100.

as producers respond to the changing opportunities.¹¹⁷ On the flipside, it is argued that warming may bring about higher agricultural yields in certain regions.¹¹⁸ Additional negative trade impacts stem from the possible disruption of trade-related infrastructure, especially coastal infrastructure, such as ports, and distribution of facilities, resulting from extreme weather events, such as, hurricanes and floods. Transportation of bulk freight by inland waterways, such as the Nile, could be disrupted during droughts. Disruptions to the supply, transport and distribution chains would raise the costs of undertaking international trade. While an increase in trade costs would be bad for trade generally, many developing African countries, whose integration into the global economy has depended on their participation in international production chains, may be more vulnerable than developed countries.¹¹⁹

2.6 Conclusion

It is evident from the above discussion that climate change is a major challenge that needs to be addressed globally.¹²⁰ The impacts will affect key sectors of international trade, such as agriculture, tourism, trade infrastructure and routes. It is also evident that African countries are more vulnerable to the impact of climate change than is the developed world. While African countries have a responsibility to address the threats posed by climate change, it is also pertinent to note that they are less culpable and their responsibility will differ accordingly from that of the developed countries. In light of this, the UN Secretary-General, Ban Ki-moon noted that:

The issue of equity is crucial. Climate change affects all, but it does not affect us all equally. Those who have done the least to cause the problem bear the gravest consequences. We have an ethical obligation to right this injustice. We have a duty to protect the most vulnerable. That is why any agreement should look to developed countries to continue taking the lead on curbing emissions. And developing nations need to be given incentives to limit the growth of their emissions. Together, we can spur a new era of green economics, an era of truly sustainable development based on clean technology and a low emission economy. But we must also take action on the immediate challenges.

¹¹⁷ See generally Ringler C, Zhu T, Cai X et al (2010).

¹¹⁸ Feris L (2010) 100.

¹¹⁹ WTO-UNEP Report (2010) 64.

¹²⁰ See generally IPCC Report (2007).

It is crucial that we follow through on existing commitments and ensure the resilience of populations that are or will be the hardest hit by climate change impacts.¹²¹

One of the ways to address these challenges is for developed countries to impose trade-related measures such as BCAs. The problem with these measures is that they may face some constraint under the WTO rules. Thus it is crucial that these measures be reconciled with the WTO rules. Having considered the linkages of climate change to international trade, it is important to examine the legality of BCA measures under the GATT rules.



¹²¹ UN Report of Conference of Parties on its 13th Session held in Bali (2007) 27-29 available at <http://unfccc.int/resource/docs/2007/cop13/eng/06.pdf> (accessed 20 March 2011).

CHAPTER THREE

Legal analysis of border carbon adjustments

3.1 Introduction

As governments in the developed world start advocating the need for the inclusion of a carbon price into industrial activities subject to international competition, they are also increasingly aware of possible repercussions on industrial competitiveness and on the risk of carbon leakage (i.e. the relocation of greenhouse gas (GHG) emissions to the non-carbon constrained region).¹²² In a quest to address these challenges, some countries are proposing to put in place several types of unilateral measures.¹²³ One of such unilateral measure is the implementation of border carbon adjustments (BCAs) measures, whereby a carbon price is adjusted at the border for international products. However, trade comes into play when such unilateral measures are being adopted; at the moment, unilateral measures are probably the most controversial topic in the debate on trade and climate change.¹²⁴

The adoption of these unilateral measures raises the question of whether they are permissible under the legal framework of the multilateral trading system, considering that World Trade Organisation (WTO) members are not allowed to adopt unilateral measures which will otherwise serve as a disguised restriction on international trade.

This chapter seeks to examine the compatibility of BCA measures with WTO law. In pursuing this objective, this chapter examines, first, the question of whether BCAs can be covered by

¹²²Reinaud J 'Would unilateral border adjustment measures be effective in preventing carbon leakage?' in *Climate and Trade Policies in a Post 2012 World*, UNEP, (2009) 71 available at <http://www.unep.org/climatechange/LinkClick.aspx?fileticket=zb4Wio0kiAI%3D&tabid=389&language=en-US>(accessed 18 March 2011).

¹²³ The main proponent of BCA measures are the US and the EU. One of the arguments put forward in favour of BCAs is that they could encourage participation in an international agreement.

¹²⁴Weischer L, Simmons B, Asselt Hv & Zelli F ' Climate and trade policies in a post-2012 World' in *Climate and Trade Policies in a Post 2012 World*, UNEP, (2009)1 available at <http://www.unep.org/climatechange/LinkClick.aspx?fileticket=zb4Wio0kiAI%3D&tabid=389&language=en-US> (accessed 18 March 2011).

the GATT rules on border tax adjustment (BTA). Secondly, this chapter provides a legal analysis building on previous 'trade and environment' cases brought before the WTO adjudicative bodies. This examines whether, and under which conditions, such measures would likely be considered consistent with WTO law in light of the obligations of international trade law.

As a starting point, it is important to note that WTO case law does not formally benefit from the principle of *stare decisis*, and therefore is neither binding nor precedent-setting in a strictly legal sense. However, as a practical matter the WTO adjudicative bodies have relied upon previous decisions with a consistency that gives them a high degree of legal authority. This general trend has been reinforced by the establishment of the Appellate Body (AB) as the last resort under the WTO adjudicative system.¹²⁵

3.2 Definition of BTA and its applicability to carbon taxes

The issue of BTA has a rather long history, dating back to the Havana Charter.¹²⁶ On 28 March 1968, the council established a working party to examine: first, the provisions of the GATT relevant to BTA; secondly, the practices of contracting parties; and thirdly, the possible effects of BTA on international trade.¹²⁷ It was mandated to consider proposals and suggestions based on this examination and to report to the council or the contracting parties. The working party members agreed that BTA mainly concerned Articles II and III of the GATT on the import side, and Article XVI of the GATT on the export side.¹²⁸ The working party used the definition of BTA applied by the Organisation for Economic Co-operation and Development (OECD). Thus, BTAs were regarded as:

[A]ny fiscal measures which put into effect, in whole or in part, the destination principle (i.e. which enable exported products to be relieved of some or all of the tax charged in the exporting country in respect of similar domestic products sold to consumers on the home market and which enable imported products sold to

¹²⁵ Potts J 'The legality of PPMs under the GATT: Challenges and opportunities for sustainable trade policy' (2008) 9 available at http://www.iisd.org/pdf/2007/ppms_gatt.pdf (accessed 13 February 2011).

¹²⁶ The Havana Charter was the charter of the defunct International Trade Organisation (ITO). It allowed for international co-operation and rules against anti-competitive business practices. The charter ultimately failed because the US congress rejected it. Elements of it became part of the GATT.

¹²⁷ WTO Working Party Report 'Border Tax Adjustment' A Report of the World Trade Organisation on Border Tax Adjustments, L/3463. (1970) 1-7 (hereafter Working Party Report).

¹²⁸ Working Party Report (1970) 1-7.

consumers to be charged with some or all of the tax charged in the importing country in respect of similar domestic products.¹²⁹

In other words, the right to impose a domestic tax on imports is referred to as 'border tax adjustment', while the opposite of the right to impose a domestic tax on imports is the right to rebate the same tax on domestic products that get exported. Under the WTO rules such exports are not considered to be prohibited export subsidies.¹³⁰

Further, the line between (generally prohibited) border tariffs and (generally permitted) domestic taxes is set out in Article II: 2 (a) of the GATT. This provision provides that the GATT's strict rules on maximum tariff ceilings do not prevent a country:

[F]rom imposing at any time on the importation of any product...a charge equivalent to an internal tax...in respect of the like domestic product or in respect of an article from which the imported product has been manufactured or produced in whole or in part.[own emphasis added].

This Article allows WTO members to impose two types of BTAs: (i) charges imposed on imported products that are like domestic products, and (ii) charges imposed on articles from which the imported product has been manufactured or produced in whole or in part. Therefore, WTO members are allowed at any time to impose on the importation of any product a charge equivalent to an internal tax (e.g. BTA).

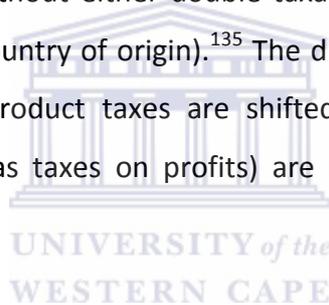
Suffice to state that there is a difference between a 'border tax' and a 'border tax adjustment'. A border tax is a tax (or customs duty) imposed on imported goods, while a BTA is an adjustment of the taxes imposed domestically on products when the goods are imported. This also applies to export duties and export rebates respectively.¹³¹

¹²⁹ Working Party Report (1970) 1.

¹³⁰ Pauwelyn J 'US federal climate policy and competitiveness concerns: The limits and options of international trade law' Working paper (2007) 17 available at <http://graduateinstitute.ch/webdav/site/ctei/shared/CTEI/Pauwelyn/internationaltradelaw.pdf> (accessed 15 December 2010).

¹³¹ WTO-UNEP Report 'Trade and Climate Change' A Report by the United Nations Environment Program and the World Trade Organisation (2009) 103 available at http://www.wto.org/english/res_e/booksp_e/flyer_trade_climate_change_e.pdf(accessed 15 November 2010) (hereafter WTO-UNEP Report)

However, it is well established under GATT law that only indirect taxes may be adjusted at the border. Indirect taxes are taxes that can be passed on to the consumers.¹³² The distinction between indirect taxes and direct taxes was originally based on economic theory regarding the extent to which such taxes were passed forward into commodity prices. The burden of indirect taxes was thought to be passed through to consumers, while the burden of direct taxes was thought to be borne by the producer.¹³³ The reason behind this distinction between, on the one hand, adjustable product or indirect taxes and, on the other hand, non-adjustable producer or direct taxes is the so called 'destination principle', according to which products themselves should only be taxed in the country of consumption (in other words: exports get a rebate; imports get taxed).¹³⁴ In this view, if products are only taxed in their place of consumption, countries preserve the right to choose their own level of taxation and trade neutrality is maintained, as all products in a given market compete on the same competitive terms (without either double taxation or advantages from a more favourable tax regime in their country of origin).¹³⁵ The distinction also finds some support in the economic theory that product taxes are shifted forward into consumer prices, whereas producer taxes (such as taxes on profits) are not passed on to the price of a product.¹³⁶



What then is a carbon tax? A carbon tax is a tax levied against products that emit carbon during the production process. The idea is to penalise the producers of such products and create incentives for the production of carbon-free goods. These taxes are often accompanied by BTAs on imported goods.¹³⁷ This is what is now referred to as BCA measures (BTA + carbon taxes) in the context of climate policy.

¹³² See generally Pauwelyn J (2007).

¹³³ Kommerskollegium Report 'Climate Measures and Trade: Legal and Economic Aspects of Border Carbon Adjustment' A Report by the Swedish National Board of Trade (2009) 8 available at http://www.kommers.se/upload/Analysarkiv/In%20English/Report%20Climate_Measures_and_Trade.pdf (accessed 10 February 2011) (hereafter Kommerskollegium Report 2009).

¹³⁴ Pauwelyn J (2007) 18.

¹³⁵ Pauwelyn J (2007) 18.

¹³⁶ Pauwelyn J (2007) 18.

¹³⁷ Feris L 'Multilateral trade policies and measures in post-Kyoto structures' in Drapers P & Mbirimi I (eds) *Climate Change & Trade : The Challenges for Southern Africa* (2010) 106.

The question that now arises is what are BCAs? Nielsen defined BCAs as border taxes levied on especially carbon-intensive products, such as steel, aluminum, paper, chemicals and cement originating from countries that have not committed themselves to strict climate change laws to lower their GHG emissions.¹³⁸ These countries are most often understood as those that have not committed themselves to a cap in a post-Kyoto agreement.¹³⁹ McIsaac defines BCAs to include BTAs on products and carbon allowances for domestic firms.¹⁴⁰ BCAs can take two forms: carbon tax and a mandatory requirement for importers to hold emissions allowances. The more ambitious is the carbon tax, which adjusts the charges on imports according to the level of GHG emitted during the production of each specific imported product. In the case of the second form of BCAs, the importing country sets a standardized tariff, or a number of emission allowances required for each product category under the BCAs to be paid when importing, regardless of how 'green' its production process has been. These standardised charges for imported products can either be based on the carbon content of domestic production or based on the carbon content embodied in imports.¹⁴¹

Further, the overall economic rationale behind BCAs is to address competitiveness concerns and level the playing field between domestic and foreign produced products.¹⁴² Concerns among domestic industries, especially those involved in energy-intensive production activities, often are directed towards a loss of competitiveness, fearing that imports of similar products that do not face higher energy prices due to carbon policy will gain an advantage over domestically produced goods.¹⁴³ The environmental rationale is to avoid

¹³⁸ Nielsen L 'Border carbon adjustments, the UNFCCC and WTO rules' (2009) 103 *American Society of International Law Proceedings* 369-72.

¹³⁹ Nielsen L (2009) 369 -72.

¹⁴⁰ McIsaac C 'Opening a gate to reduce global emissions: Getting over and into WTO' (2010) *Journal of World Trade* 1056.

¹⁴¹ Kommerskollegium Report 'Practical aspects of border carbon adjustment measures' A report by the Swedish National Board of Trade (2010) 7 available at <http://www.kommers.se/upload/Analysarkiv/Publikationer/rapport%20Practical%20Aspects%20of%20Border%20Carbon%20Adjustment%20Measures.pdf> (accessed 18 November 2010).

¹⁴² Feris L (2010) 106.

¹⁴³ Winchester N, Paltsev S & Reilly J 'Will border carbon adjustment work' (2010) 2 available at http://globalchange.mit.edu/files/document/MITJPSPGC_Rpt184.pdf (accessed 15 February 2011).

'carbon leakage'.¹⁴⁴ This term refers to a situation in which the measures taken by some countries to limit their carbon dioxide (CO₂) emissions at a national level do not ultimately result in a global CO₂ reduction, because industries emitting high levels of CO₂ simply relocate to countries which do not impose such strong penalties on emissions.¹⁴⁵ It has been argued that the specific economic and environmental effectiveness of BCAs depends on their exact design, but a review of studies published to date suggests that while BCAs may be effective in addressing the economic competitiveness concern, their environmentally relevant impact on reducing leakage is less clear and may be modest.¹⁴⁶ Another rationale for the imposition of BCAs is to get countries without emissions reduction commitments to make such commitments or to encourage those countries outside the framework of Kyoto Protocol to join it.¹⁴⁷

3.3 Could a carbon tax be regarded as an adjustable product tax (=indirect tax) or would it be classified as a producer tax (= direct tax)?

Pauwelyn¹⁴⁸ argues that it is reasonable to classify a carbon tax as a product tax. He says the idea of the carbon tax is to internalise the social cost of carbon in the ultimate price of products so as to give an incentive to both producers and consumers to limit the use of carbon-intensive products and to shift to greener energy. From that perspective, a carbon tax is an indirect tax applied 'indirectly' to products. As the very reason for the tax is to make carbon-intensive products more expensive, the tax does (or should) shift forward to consumers and therefore could be said to be adjustable at the border. According to Mavroidis, it would be unlikely that a panel would classify a carbon tax as a producer tax adjustable at the border.¹⁴⁹

¹⁴⁴Reinaud J (2010) 72. This can also be looked from the perspective of competitiveness-driven carbon leakage. Competitiveness-driven carbon leakage is driven through two channels: production leakage, where more products, say from China, are imported into the European Union (EU); and investment leakage, where investment decisions to retrofit existing production in the EU, for example, are cancelled, or where new capacity is being built in China instead of the EU. As such, under this analysis, changes are driven by inequalities of climate policy costs, and other factors (e.g. changes in exchange rates) do not play a role. In both scenarios, carbon leakage would be visible through changes in international trade patterns of both exports and imports.

¹⁴⁵WTO-UNEP Report (2009) 51.

¹⁴⁶Reinaud J (2010) 74.

¹⁴⁷ See generally Weischer L, Simmons B, Asselt H & Zelli F (2010).

¹⁴⁸Pauwelyn J (2007) 20-21.

¹⁴⁹Kommerskollegium Report (2009) 7.

3.4 The adjustment of non physical input at the border

This raises the question as to whether taxes on inputs which are not physically incorporated into the final product can be adjusted at the border?

This issue is quite complex and various scholars have expressed various opinions. Pauwelyn¹⁵⁰ admits that it remains unclear whether a tax on inputs which are not physically incorporated into the final product can be adjusted at the border. The reason is that these 'hidden taxes' target not the physical features of the imported product itself, but rather the process or production method of the product abroad. In the *US–Superfund* dispute, the panel permitted the United States to impose a domestic tax on certain imports that had used the same chemicals 'as materials in the manufacture or production' of these imports. Importantly, the panel did not specify whether these chemicals still had to be physically present in the imported product.¹⁵¹ Holzer admits that the legal status of non-product related PPMs is not clear, arguing that the problem is that these measures are applied extraterritorially, i.e. an importing country imposes on an exporting country its environmental policy as well as its production methods on foreign producers.¹⁵² Howse and Eliason¹⁵³ disagree with Pauwelyn, arguing that the definition in the Agreement on Subsidies and Countervailing Measures (SCM Agreement)¹⁵⁴ makes it clear that the relevant concept is whether inputs are used to create the final product, not whether they are physically embodied in it. Therefore, the language in Article II: 2 (a) of the GATT, namely 'from which the imported product has been manufactured or produced in whole or in part', should be read to include not only products incorporated physically into the imported final product but also that are necessary to its manufacture or production. They therefore estimate

¹⁵⁰Kommerskollegium Report (2009) 9.

¹⁵¹Panel Report *US–Superfund, United States–Taxes on Petroleum and Certain Imported Substances*, adopted 17 June 1987, L-6175.

¹⁵²Holzer K 'Trade and climate change interaction: Dealing with WTO law inconsistencies of carbon related adjustment measures' Research paper (2010) 6 available at http://stockholm.sqir.eu/uploads/Holzer_Working%20paper_23sept.pdf (accessed 9 January 2011).

¹⁵³Kommerskollegium Report (2009) 9.

¹⁵⁴They referred to the definition given in footnote 61 of the SCM Agreement on indirect tax schemes, which provides that 'Inputs consumed in the production process are inputs physically incorporated, energy, fuels and oil used in the production process and catalysts which are consumed in the course of their use to obtain exported product'.

Article II: 2 of the GATT to be applicable.¹⁵⁵ Other scholars argue that the revision in the Uruguay Round broadened the category of adjustable taxes to allow rebates for indirect taxes on goods and services if they were 'consumed' in the production of the exported product. They point out the differences between the 1979 SCM Code and the 1994 SCM Agreement which slightly changed the impetus behind these provisions.¹⁵⁶

However, Veel argued that while the charges on CO₂ emissions do not obviously fall into the types of direct taxes listed in paragraph 14 of the Working Party Report, they would most likely be characterised as 'taxes occultes', i.e. consumption taxes on capital equipment, auxiliary materials and services used in the transportation and production of taxable goods. He further argued that flowing from the GATT panel decision in the *US-Superfund* dispute where it was held that the tax on the imported substance was eligible for BTAs. This decision suggests that taxes applied to imported products based on the quantity of the intermediate products used in the production of the imported product are in principle eligible for BTAs. Thus, the same reasoning might also suggest that charges based on the amount of CO₂ emitted in the production of a good might also be eligible for BTAs.¹⁵⁷ Finally, even if the rules on BTAs can be applied, a carbon tax must not discriminate between domestic and foreign producers as provided for under Article III: 2 of the GATT.

3.5 Compliance with Article III: 2 of GATT

Article III: 2 provides as follows:

The products of the territory of any contracting party imported into the territory of any other contracting party shall not be subject, directly or indirectly, to internal taxes or other internal charges of any kind in excess of those applied, directly or indirectly, to like domestic products. Moreover, no contracting party shall otherwise apply internal taxes or other internal charges to imported or domestic products in a manner contrary to the principles set forth in paragraph 1.

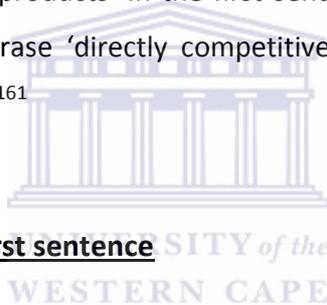
¹⁵⁵Kommerskollegium Report (2009) 9.

¹⁵⁶Kommerskollegium Report (2009) 9.

¹⁵⁷Veel P 'Carbon Tariffs and the WTO: An Evaluation of Feasible Policies' 12 *Journal of International Economic Law* 773.

The provision of Article III: 2 contains the national treatment principle, which requires member states to treat imported products no less favourably than like domestic products.¹⁵⁸ This Article deals specifically with internal taxes or other internal charges. For a tax on imports to fall under this provision, it needs to apply 'directly or indirectly, to like domestic products'.¹⁵⁹

However, in analysing the provision of Article III: 2, the Appellate Body (AB) has noted that this Article contains two separate sentences, each imposing distinct obligations: the first lays down obligations in respect of 'like products', while the second lays down obligations in respect of 'directly competitive or substitutable' products.¹⁶⁰ It has also been noted by the AB that the two separate obligations in the two sentences of Article III: 2 must be interpreted in a harmonious manner that gives meaning to both sentences in that provision. Thus, the scope of the term 'like products' in the first sentence of Article III: 2 affects, and is affected by, the scope of the phrase 'directly competitive or substitutable' products in the second sentence of that provision.¹⁶¹



3.5.1 In terms of Article III: 2 first sentence

The first sentence raises the issue of what constitutes 'like product' under the GATT/WTO law. The like test is well founded in WTO/GATT jurisprudence, and it has been held by the AB that the term 'likeness' must be decided on a case-by-case basis. In the *Japan–Alcoholic Beverages II* case, the AB listed four criteria to determine 'like' products: (1) the physical characteristics of the products; (2) the end use of the product in a given market; (3) consumers' tastes and habits; and (4) tariff classification.¹⁶² The source of the first three criteria is the Working Party Report on Border Tax Adjustments, while the fourth criterion

¹⁵⁸ Article III :2 prohibits discriminatory taxation against foreign 'like products' or 'directly competitive or substitutable products'. Any form of discriminatory taxation against foreign 'like products', taxes applied to the imported products 'in excess of those applied to the domestic like products', will be inconsistent with GATT Article III: 2.

¹⁵⁹ WTO –UNEP Report (2009) 106.

¹⁶⁰ AB Report *European Communities–Measures Affecting Asbestos and Asbestos-containing Products*, WT/DS135 /AB/R, para 94, adopted 5 April 2001.

¹⁶¹ AB Report *Japan–Taxes on Alcoholic Beverages*, WT/DS8/AB/R, WT/DS11/AB/R, adopted 1 November 1996, p. 25.

¹⁶² AB Report *Japan–Alcoholic Beverages II* p. 25.

was subsequently added by the GATT panel in *US–Gasoline*¹⁶³. Further, the AB has made it clear that the concept of likeness is one that needs to be addressed on a case-by-case basis: the four criteria are simply tools to assist in the task of sorting and examining the relevant evidence, and not a closed list of criteria that determine the legal characteristics of products.¹⁶⁴ This will allow a fair assessment in each case of the different elements that constitute ‘similar product’. The AB put it accordingly as follows:

No one approach to exercising judgment will be appropriate for all cases. The concept of ‘likeness’ is a relative one that evokes the image of an accordion. The accordion of ‘likeness’ stretches and squeezes in different places as different provisions of the WTO agreement are applied. The width of the accordion in any one of those places must be determined by the particular provision in which the term ‘like’ is encountered as well as by the context and the circumstances that prevail in any given case to which that provision may apply.¹⁶⁵

In interpreting the first sentence of Article III: 2, the AB noted that in determining what constitutes like product that this must be construed narrowly, so as not to condemn measures that in strict terms are not meant to be condemned.¹⁶⁶

Furthermore, the analyses of finding ‘like products’ in relation to BCAs can be viewed from two perspectives: (1) the imported and domestic products to be compared must be identified; (2) whether the imported and domestic products can be considered ‘like products’ notwithstanding differences in the taxes or energy (or carbon) that may be ‘embodied’ in the final product.¹⁶⁷ To use Veel’s example, a carbon tax would result in a tax on imported ‘high CO₂ steel’ which is in excess of domestically-produced low CO₂ steel. Thus, the question is whether high CO₂ steel is ‘like’ low CO₂ steel.¹⁶⁸ Originally, the SCM Agreement permitted border adjustments on inputs to production only when the goods were ‘physically incorporated’ into the exported products. The Uruguay Round brought a

¹⁶³ Panel Report *United States–Standards for Reformulated and Conventional Gasoline* (1996), WT/DS2/R para 3.22.

¹⁶⁴ AB Report *Japan–Alcoholic Beverages II* p.25. See also AB Report *EC–Asbestos* p.39.

¹⁶⁵ AB Report *Japan–Alcoholic Beverages II* p. 21.

¹⁶⁶ AB Report *Japan–Alcoholic Beverages II* p. 20.

¹⁶⁷ Kang S ‘Carbon border tax adjustment from WTO point of view’ Working paper (2010) 6 available at http://papers.ssrn.com/sol3/papers.cfm?abstract_id=1628718 (accessed 13 December 2010).

¹⁶⁸ Veel P (2010) 779. See also Pauwelyn J (2007) 28.

change to permitted adjustable taxes and extended export rebates to indirect taxes on goods if they are 'consumed' in the production of the exported product.¹⁶⁹

Different scholars have shared different views on the test of 'likeness' as it relates to BCAs. Pauwelyn argues that all of the factors except, potentially, for consumers' tastes and habits, suggest that high CO₂ and low CO₂ steel are like products under Article III: 2.¹⁷⁰ Veel argues that a product's 'properties, nature and quality' include the degree of the CO₂ emitted in the course of the production of those products. However, practical considerations might lead a WTO panel considering this factor to conclude that high CO₂ steel is 'like' low CO₂ steel. Even accepting the notion that differences in the production and process methods used in producing two otherwise like products can in some cases lead to a finding that the products are not in fact like under Article III: 2, the fact that CO₂ emissions are a continuous variable complicates the determination of likeness.¹⁷¹ Bhagwati and Mavroidis are of the view that a reasonable consumer test- underlying an 'informed consumer' would probably lead to the conclusion that a consumer who is aware of the environmental hazard that global warming might represent will treat the two goods (Kyoto compatible and Kyoto incompatible) as unlike goods. However, this seems valid only for the case where the process had been 'incorporated in the final product'. Others have argued that the criterion 'consumer tastes and habits' cannot be stretched so far as to render physically identical products 'unlike'.¹⁷²

Another requirement under the first sentence of Article III: 2 is whether the taxes on imported products are 'in excess of' those on like domestic products. If so, then the WTO member that has imposed the tax is not in compliance with Article III. Even the smallest amount of 'excess' is too much.¹⁷³ The AB has, however, stated that the prohibition of discriminatory taxes in Article III: 2, first sentence, is not conditional on a 'trade effects test' and nor is it qualified by a *de minimis* standard.¹⁷⁴

¹⁶⁹ McIsaac C (2010) 1066.

¹⁷⁰ See generally Pauwelyn J (2007).

¹⁷¹ Veel P (2010) 780-81.

¹⁷² Kommerskollegium (2009) 12.

¹⁷³ AB Report *Japan-Alcoholic Beverages II* p. 23.

¹⁷⁴ AB Report *Japan-Alcoholic Beverages II* p. 23.

Finally, the issue of determining what constitutes likeness in relation to BCAs raises the question of how to determine the carbon content of specific imports without discriminating against imports? It has been suggested that in order to avoid any semblance of discrimination, the calculation of the carbon tax or emission allowance requirement on imports based on the carbon emitted should be done using the best available technology. This to a very large extent will reduce the amount of adjustment that can be imposed on imports and may not be sufficient to address competitiveness concerns, but will avoid claims of discrimination as all 'like' products will then be taxed the same.¹⁷⁵

3.5.2 In terms of Article III: 2 second sentence

The main element under the second sentence of Article III: 2 is that internal taxes and other internal charges 'should not be applied to imported or domestic products so as to afford protection to domestic production'. However, in interpreting the second sentence of Article III: 2, the AB has noted that this must be read together with the Added Article (*Ad*). The *Ad* Article states as follows:

A tax conforming to the requirements of the first sentence of paragraph 2 would be considered to be inconsistent with the provisions of the second sentence only in cases where competition was involved between, on the one hand, the taxed product and, on the other hand, a directly competitive or substitutable product which was not similarly taxed. [own emphasis added]

Suffice to state that Article III: 2, second sentence, and the accompanying *Ad* Article have equivalent legal status in the sense that both are treaty language which was negotiated and agreed at the same time. The *Ad* Article does not replace or modify the language contained in Article III: 2, second sentence, but, in fact, clarifies its meaning.¹⁷⁶ Accordingly, the language of the second sentence and the *Ad* Article must be read together in order to give them their proper meaning.¹⁷⁷ Further, in determining whether imported products are treated in a less favourable manner than domestic products, the panel in the *US-Gasoline*

¹⁷⁵Pauwelyn J (2007) 31.

¹⁷⁶ AB Report *Japan-Alcoholic Beverages II* p. 24.

¹⁷⁷ AB Report *Japan-Alcoholic Beverages II* p. 24.

case¹⁷⁸ found that imported and domestic gasoline were ‘like products’ and that since, under the baseline establishment gasoline rules, imported gasoline was effectively prevented from benefitting from as favourable sales conditions as were afforded domestic gasoline by an individual baseline tied to the producer of a product, imported gasoline was treated ‘less favourably’ than domestic gasoline. Thus, the gasoline rules were accordingly inconsistent with Article III.

3.6 Compliance with Article I of the GATT (MFN)

The imposition of BCAs must not only avoid discrimination of imports against domestic products (national treatment under GATT Article III), it must also avoid discrimination between imports from different countries. Thus, any advantage granted by any member to any product originating in or destined for any other country must be shared evenhandedly to the like products of all member countries. This is the requirement under the so called ‘most favoured nation’ (MFN) obligation of GATT Article I. This provision requires, more specifically, that:

[A]ny advantage...granted by any member to any product originating in...any other country shall be accorded immediately and unconditionally to the like product originating in...all other WTO members.¹⁷⁹ [own emphasis added].

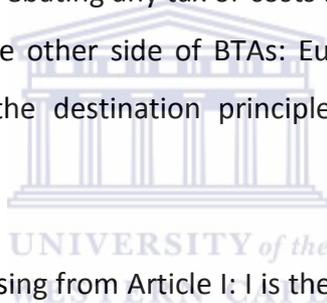
Following the above quotation, at least three problems may arise from the implementation of BCAs. First, if any of the proposed legislation on BCAs excludes from its scope imports from countries that have emission cuts in place. In that case an ‘advantage’ will be granted to such countries above other countries that don’t have emission cuts in place. For example, if the United States (US) grants an advantage to the European Union (EU) (which is subject to emission cuts in Europe) and it doesn’t grant the same ‘advantage’ ‘immediately and unconditionally’ to a country like China and India (who do not have emission cuts in place), this will no doubt be a violation of Article I of the GATT because products from the EU

¹⁷⁸ AB Report *US–Gasoline* p. 7.

¹⁷⁹ Article 1, GATT 1994.

market will have more 'advantage' over and above products coming from China and India in the international market.¹⁸⁰

Secondly, another issue that may arise is if BCAs are imposed across the board, including imports from countries that have their own emission cuts in place. This will bring about a situation where countries who have similar regulations will be taxed twice and at the same time goods from countries which don't have an emission limit in place will have an advantage above others. For example, if the US imposes BCAs on goods emanating from the EU and China, Europe could then challenge such legislation, arguing that its producers are paying the price of carbon twice: once under domestic EU legislation and a second time at US customs. From that perspective, Chinese imports, for example, are granted an 'advantage' (i.e. only taxed once) not accorded to European imports. However, such advantage can be neutralised by rebating any tax or costs borne by European products upon exportation. That is, after all, the other side of BTAs: European goods get a rebate upon exportation but, according to the destination principle, pay the US carbon tax when imported into the US.¹⁸¹



A third form of discrimination arising from Article I: I is the exemption of importers of goods from those countries identified by the UN as Least Developed Countries (LDCs) from the imposition of BCAs.¹⁸² This may, however, be justified under the enabling clause, which permits developed countries to offer 'differential and more favourable treatment to developing countries, without according such treatment to other WTO members'.¹⁸³

¹⁸⁰Pauwelyn J (2007) 32.

¹⁸¹Pauwelyn J (2007) 33.

¹⁸² For example the proposed Lieberman-Warner Bill (America's Climate Security Act) in the US provides for exemption of importers of goods from LDCs.

¹⁸³ Decision of 28 November 1979 on differential and more favourable treatment reciprocity and fuller participation of developing countries, L/4903. available at

http://www.wto.org/english/docs_e/legal_e/enabling1979_e.htm

(accessed on 18 February 2011). The enabling clause was adopted in 1979 as part of the results of the Tokyo Round and provided permanent legal bases for the following: derogation from the MFN principle to allow developed countries to grant trade preferences on a generalised, non-reciprocal and non-discriminatory basis to developing countries (Generalised System of Preferences and deeper preferences for LDCs). It also provided derogation from the MFN principle to permit developing countries to enter into regional trade agreements among themselves. According to the UN, a country is classified as a LDC if it meets three criteria based on: (1) low-income (2) human resource weakness, and (3) economic vulnerability.

According to the AB, the enabling clause does not authorize any kind of response to *any* claimed need of developing countries, but rather the types of needs to which response is envisaged are limited to ‘development, financial and trade needs’.¹⁸⁴ In providing additional guidance on what standards might be permissible bases for such ‘need’, the AB indicated that broad-based recognition of a particular ‘need’, set out in multilateral instruments adopted by international organisations, could serve as such a standard.¹⁸⁵ If LDCs are exempted from the imposition of BCAs this will certainly meet the standard, as LDCs are determined by the UN, which is an international organisation saddled with the responsibility to identify the poorest and most vulnerable developing countries. Thus, the exemption of LDCs from the imposition of BCAs would most likely not violate Article I of the GATT.

Likewise, it will be a breach of Article I of GATT to exclude developing countries depending on their stage of economic development. This stands, however, in contrast to Article 3: I of the UNFCCC which provides that any measure must comply with the principle of common but differentiated responsibilities and capabilities.¹⁸⁶ This principle provides for different treatment of developing countries based on special needs and circumstances, future economic development and historical contributions to causing global warming.¹⁸⁷

3.7 Justification under Article XX of the GATT

The environmental exception found in GATT Article XX provides justifications for border measures that may otherwise violate the GATT provision.¹⁸⁸ In the *US–Shrimp* case, the AB emphasised that each of the exceptions in Article XX is a ‘limited and conditional’ exception from the substantive obligations contained in the provisions of GATT 1994.¹⁸⁹ On the one hand, the list of exceptions under Article XX is exhaustive: no other public policy objectives except those listed in the clauses of the Article can serve as excuses for the violation of

¹⁸⁴ AB Report *European Communities–Conditions for the Granting of Tariff Preferences to Developing Countries*, WT/DS246/AB/R, DSR 2004: III, 925.

¹⁸⁵ AB Report *EC–Tariff Preferences* para 163.

¹⁸⁶ Article 3 of the UNFCCC.

¹⁸⁷ *Kommerskollegium* (2009) 13.

¹⁸⁸ It is important to note that GATT Article XX comes into the picture only when an infringement has been observed. This is a very important element that is sometimes overlooked, but it is by no means less significant.

¹⁸⁹ AB Report *US States Import Prohibition of Certain Shrimp and Shrimp Products*, WT/DS58/AB/R, para 157, adopted 6 November 1998 (hereafter *US–Shrimp*).

substantive rules. On the other hand, invocation of Article XX requires fulfilling a number of requirements.¹⁹⁰ Further, it is important to note that the provisions of GATT Article XX cannot be invoked to justify a measure to offset competitive disadvantages for domestic industry as Article XX does not cater for economic arguments.¹⁹¹

However, the position is really not clear as to whether Article XX could be invoked if BCAs legislation violates provisions outside the GATT, e.g. the SCM Agreement, in the case of allowances rebates. When a violation concerns provisions of other agreements contained in Annex 1A of the WTO Agreement, it might well be possible that GATT general exceptions apply. Many of the other agreements in Annex 1A are extensions or interpretations of existing provisions of different articles in the GATT. It might be argued that if GATT Article XX applies to the provisions of GATT, it also applies to their broader version.¹⁹² In the *US–Shrimp (Thailand)* the AB held that GATT Article XX could be used in defense of measures challenged under the Anti-dumping Agreement.¹⁹³ In *China–Audiovisual Services*, the AB accepted the availability of a defense under GATT Article XX (a) of Chinese measures violating China’s Accession Protocol, as the Accession Protocol contained a reference to the provisions of the WTO Agreement. The AB further held that China has not demonstrated that the relevant provisions are ‘necessary’ to protect public morals, within the meaning of Article XX (a) of the GATT 1994 and that as a result China has not established that these provisions are justified under Article XX (a).¹⁹⁴ The extent to which the scope of Article XX can be applied outside the GATT remains unclear and could only be decided by the WTO adjudicative bodies in future disputes, or by a decision of the WTO ministerial conference.

Furthermore, two exceptions are of particular relevance to the protection of the environment: paragraphs (b) and (g) of Article XX. According to these two paragraphs, WTO members may adopt policy measures that are inconsistent with GATT disciplines, but necessary to protect human, animal or plant life or health (paragraph (b)), or relating to the

¹⁹⁰Holzer K (2010) 8.

¹⁹¹Kommerskollegium (2009) 13.

¹⁹²Holzer K (2010) 8.

¹⁹³AB Report *United States–Measures Relating to Shrimp from Thailand*, WT/DS345/AB/R, WT/DS345/AB/R p. 117 adopted 1 August 2008.

¹⁹⁴AB Report *China–Measures Affecting Trading Rights and the Distribution Services for Certain Publications and Audiovisual Entertainment Products*, WT/DS363/AB/R, para 205-33, adopted 19 January 2010.

conservation of exhaustible natural resources (paragraph (g)).¹⁹⁵ To justify the imposition of BCAs under these exceptions, a WTO member must perform a two-tier analysis proving: first, that the measure falls under at least one of the two environmental exceptions (e.g. paragraphs (b) or (g)); and, secondly, that the measure satisfies the requirement of the introductory paragraph (the chapeau of Article XX), i.e. that it is not applied in a manner which would constitute a means of arbitrary or unjustifiable discrimination between countries where the same conditions prevail, or a disguised restriction on international law.¹⁹⁶ Whilst the inclusion of these two exceptions suggests that WTO members may adopt laws that protect the environment at the expense of international trade, reliance on these exceptions has proven to be extremely difficult. It is also important to note that a measure can be considered under these two paragraphs at the same time, as different provisions of the WTO agreements can apply to different aspects of the measure.¹⁹⁷ Global warming can affect both exhaustible natural resources (climate, animals etc) and at the same time pose a risk to human, animal and plant life and health (through diseases, high temperatures, hurricanes etc).¹⁹⁸ In only two out of the approximately 14 disputes over environmental trade restrictions, the panel reports in *EC–Asbestos* and in *US–Shrimp*, has the DSB found that an environmental trade restriction actually met the requirements of Article XX.¹⁹⁹ It is also important to note that the burden of showing that these requirements are met is always on the party who is defending a measure through GATT Article XX.²⁰⁰

3.7.1 Requirement for justification under Article XX (b)

Justification of BCA measures under Article XX (b) can raise a number of questions. Even if there are no doubts that climate change affects human, animal and plant life, there can still be a question as to whether BCAs are really ‘necessary’. Article XX (b) provides thus:

¹⁹⁵WTO-UNEP Report (2009) 107.

¹⁹⁶ AB Report *United States–Standards for Reformulated and Conventional Gasoline*, WT/DS2/R, p. 22, adopted 20 May 1996.

¹⁹⁷ AB Report *European Communities–Regimes for the Importation, Sale and Distribution of Bananas*, WT/DS27/AB/R, para 221, adopted 25 September 1997.

¹⁹⁸Holzer K (2010) 9.

¹⁹⁹Feris L ‘Trade and the environment’ in Strydom HA & King ND (eds) *Environmental Management in South Africa* 2 ed (2009) 276-77.

²⁰⁰ AB Report *US–Gasoline* p. 22-3.

[Measures] necessary to protect human, animal or plant life or health...

The test of necessity comprises an 'ends and means' analysis and a 'weighing and balancing' test.²⁰¹ These tests reflect the balance in WTO agreements between two important goals: preserving the freedom of members to set and achieve regulatory objectives through measures of their own choosing, and discouraging members from adopting or maintaining measures that unduly restrict trade. Necessity tests typically achieve this balance by requiring that measures which restrict trade in some way (including by violating obligations of an agreement) are permissible only if they are 'necessary' to achieve the member's policy objective.²⁰² The key elements of the necessity test include:

- i. The analysis of the contribution of a measure to the achievement of the stated objective.

The word 'necessary' as provided for under Article XX (b) requires the weighing and balancing of regulations of factors such as the contribution made by the measure to the enforcement of the law or regulation at issue, the relative importance of common interests or values protected, and the impact of the law on trade.²⁰³ In the same vein, the AB in *Brazil–Retreaded Tyres* noted that:

[A] contribution exists when there is a genuine relationship of ends and means between the objective pursued and the measure at issue. To be characterized as necessary, a measure does not have to be indispensable. However, its contribution to the achievement of the objective must be material, not merely marginal or insignificant, especially if the measure at issue is as trade restrictive as an import ban.²⁰⁴

²⁰¹Holzer K (2010) 9.

²⁰² WTO Working Party Report on Domestic Regulation, 8 December (2003) S/WPDR/W/27 available at <http://ictsd.org/downloads/2008/04/necctest.pdf> (accessed 15 March 2011).

²⁰³ AB Report *Korea–Measures Affecting Imports of Fresh, Chilled and Frozen Beef*, WT /DS161/R, WT/DS169/R, para 166-63, adopted 10 January 2001.

²⁰⁴ AB Report *Brazil–Measures Affecting Imports of Retreaded Tyres*, WT/DS332/AB/R, adopted 17 December 2007 (hereafter *Brazil–Retreaded Tyres*). The European Communities (EC) instituted the action against Brazil on the basis that Brazil's imposition of an import ban on retreaded tyres was contrary to Brazil's obligations under the GATT. The AB upheld the panel's finding that the import ban was provisionally justified as 'necessary' within the meaning of XX (b). The panel 'weighed and balanced' the contribution of the import ban to its stated objective against its trade restrictiveness, taking into account the importance of the underlying interests or values. The panel correctly held that none of the trade-restrictive alternatives suggested by the EC constituted 'reasonably available' alternatives to the import ban.

However, as to the level of protection which a country may establish by a measure in pursuit of a legitimate policy objective, the AB in *EC–Asbestos* noted that it is undisputed that WTO members have the right to determine the level of protection of health that they consider appropriate in a given situation. This should, however, be valid for the protection of the environment and climate. Moreover, the AB seems to accept the level of protection corresponding to zero risk (particularly, the risk of human health).²⁰⁵

ii. The check of less trade-restrictive alternatives

This element is to the effect that a WTO member cannot justify a measure inconsistent with another GATT provision as ‘necessary’ where a less trade-restrictive alternative measure is available to it.²⁰⁶ The concept of ‘necessary’ was assessed in *Thailand Cigarettes*²⁰⁷. The fact of the matter was that Thailand prohibited the importation of cigarettes and other tobacco preparations, but authorised the sale of domestic cigarettes. The US complained that the restrictions were inconsistent with GATT Article XI: I, and considered that they were justified neither by Article XI: 2 (c), nor by Article XX (b). Thailand argued that the import restrictions were justified under Article XX (b) because the government had adopted measures that could only be effective if cigarettes imports were prohibited and because chemicals and other additives contained in the US cigarettes might make them more harmful than Thai cigarettes. The GATT panel in its decision pointed to the availability of other measures (e. g. a ban on the advertisement of domestic and imported cigarettes), which could achieve the health policy goals but, at the same time, would be less trade-restrictive than a ban on imports of cigarettes. The AB noted as follows:

The import restrictions imposed by Thailand could be considered to be ‘necessary’ in terms of Article XX (b) only if there were no alternative measure consistent with the General Agreement or less inconsistent with it, which Thailand could reasonably be expected to employ to achieve its health policy objectives²⁰⁸

²⁰⁵ Holzer K (2010) 10.

²⁰⁶ Panel Report *United States–Standards for Reformulated and Conventional Gasoline*, WT/ DS2/AB/R, para6.20, adopted 20 May 1996.

²⁰⁷ GATT Panel Report *Thailand–Restrictions on Importation of, and Internal Taxes on, Cigarettes* (7 November 1990) DS10/R-37S/200, para 74-5.

²⁰⁸ AB Report *Thailand–Cigarettes* para 75.

This ruling carries the implication that WTO members are restricted in finding measures that meet their policy goals. They are obliged to scrutinise all possible measures to ensure that they elect to apply only those measures that do not unduly restrict trade. In other words, if there are different ways of meeting policy objectives, members should choose measures that are the least restrictive of trade, even though they may not be optimum measures for ensuring human, animal or plant health or life.²⁰⁹

In the *EC–Asbestos* case the panel looked at the issue of less inconsistent measures from another perspective, arguing that in determining whether a measure is necessary it is important to assess whether consistent or less inconsistent measures are reasonably available. The panel suggests that the availability of the measure should not be examined theoretically or in absolute terms, nor should it be interpreted loosely.²¹⁰ The fact that, administratively, one measure may be easier to implement than another, does not mean that the measure is not reasonably available. The panel further held that reasonably available measures must be assessed in the light of economic and administrative realities facing the member concerned and by also taking into account the fact that the state must provide itself with the means of implementing its policies.²¹¹ In the same vein the AB in *Brazil–Retreaded Tyres* stated that in analysing whether there are alternative less trade-restrictive measures, a country’s level of development should also be taken into consideration in that:

The capacity of a country to implement remedial measures that would be particularly costly or would require advanced technologies may be relevant to the assessment of whether such measures or practices are reasonably available alternatives to a preventive measure, such as the import ban, which does not involve prohibitive costs or substantial technical difficulties.²¹²

However, proving the necessity of a measure under paragraph (b) of Article XX seems to be quite challenging.²¹³ The possible explanation for such a strict threshold erected by the AB in

²⁰⁹Feris L (2009) 278.

²¹⁰ Panel Report *European Communities–Measures Affecting Asbestos and Asbestos-containing Products*, WT/DS135, para 8.207, adopted 5 April 2001.

²¹¹ Panel Report *EC–Asbestos* para 8.207.

²¹² See generally AB Report *Brazil–Retreaded Tyres*.

²¹³ There are several disputes in which the respondents manage to pass the necessity test as provided in Article XX (b) in *EC–Asbestos*, in which the value pursued by the import ban was considered ‘both vital and important in the highest degree’ and no reasonable alternatives were found available. In *Brazil–Retreaded Tyres*, the

the analysis of the necessity of a measure under paragraph (b) is that otherwise it would be quite easy to disguise protectionism under the legitimate objective to protect human, animal or plant life or health. Thus, determining whether there is a risk to the life or health of people, animals or plants under paragraph (b) is more subjective than determining whether resources are exhaustible or not under paragraph (g).²¹⁴

In light of the strict interpretation of Article XX (b) it will be very difficult for countries who intend to implement BCAs to justify their measure under this sub-section; it has, however, been suggested using the environmental exception clause in Article XX (g)²¹⁵ which to a very large extent provides for a less stringent requirement.

3.7.2 Justification under Article XX (g)

GATT Article XX (g) provides as follows:

[R]elating to the conservation of exhaustible natural resources if such measures are made effective in conjunction with restrictions on domestic production or consumption.[own emphasis added].

The term 'relating to' as provided for in this Article requires a lower level of scrutiny in view of its broader meaning as compared to the requirement of 'necessity' under Article XX (b).

The key element of this Article as it relates to BCAs includes:

- i. BCAs and the requirement of 'exhaustible natural resources'

In the *US–Gasoline* dispute Venezuela and Brazil brought an action against the US on the basis that the US applied stricter rules to the chemical characteristics of imported gasoline than it did for domestically refined gasoline. Venezuela and Brazil claimed that the gasoline rule was inconsistent, among other things, with GATT Article III (national treatment) and was not covered by GATT Article XX. In determining what constitutes an exhaustible natural resource under Article XX (g), the panel and AB determined that clean air was an exhaustible

Import ban also passed the necessity test, but was found to be inconsistent with the chapeau of Article XX and, hence, unjustified.

²¹⁴Holzer K (2010) 11.

²¹⁵Pauwelyn J (2007) 34.

natural resource within the meaning of Article XX (g).²¹⁶ Also, in the *US–Shrimp* case, four WTO members (India, Malaysia, Pakistan and Thailand) brought a joint complaint against a ban imposed by the US on the importation of certain shrimp and shrimp products from countries that had not been certified by the Department of State as having a comprehensive sea turtle conservation regime. The US argued that the measure was valid under Article XX (g). The AB, in reversing the panel report, held that the measure did fall under Article XX (g) and was justified. The AB in determining the term ‘exhaustible natural resources’ held that this includes living and non-living resources.²¹⁷

Most scholars find it uncontroversial that the earth’s atmosphere constitutes an ‘exhaustible natural resources’, especially in light of the *US–Shrimp* case. Pauwelyn argues that considering the international importance given today to the problem of climate change and the catastrophic consequences that are linked to it for all forms of life on earth, it will be surprising if the WTO would not accept that the planet’s atmosphere (that is, the layer of gases around the earth that regulates the planet’s climate) is an ‘exhaustible natural resource’. The world’s atmosphere is, after all, a global commons, and carbon emissions are, because of their global impact, a collective action problem.²¹⁸ To Kang, BCAs can be understood as a measure ‘for the conservation of exhaustible natural resources’, as they are primarily aimed at control of carbon leakage due to the different GHG control regimes around the world. In this way, BCAs ‘achieve stabilisation of GHG concentrations in the atmosphere at a level which prevents dangerous anthropogenic interference with the climate system’²¹⁹. In addition, one of the objectives of BCAs is to control carbon leakage and ultimately decrease carbon consumption in the global level. In this regard, BCAs can be justified under GATT Article XX (g).²²⁰ Holzer is of the opinion that the climate can also be viewed as a quality of the air, as it is usually defined as the average weather, i.e. atmospheric conditions over longer periods of time. Holzer also argues that, furthermore,

²¹⁶ AB Report *US–Gasoline* p. 14.

²¹⁷ AB Report *United States–Import Prohibition of Certain Shrimp and Shrimp Products*, WT/DS58/AB/R, para 131, adopted 6 November.

²¹⁸ Pauwelyn J (2010) 35.

²¹⁹ Kang S (2010) 11.

²²⁰ Kang S (2010) 11. Kang refers to Carbon Border Tax Adjustments but for the sake of consistency I have adopted the term BCAs, which in effect means the same thing in this context.

changes in climate lead to the depletion of other exhaustible natural resources, such as forestry, fisheries, biodiversity etc.²²¹

ii. BCAs and the requirement of ‘relating to the conservation of the planet’s atmosphere’

In *US–Shrimp*, the AB emphasised that there must be a close and genuine relationship of ‘ends and means’.²²² The measure in issue must not be ‘disproportionately wide in its scope and reach in relation to the policy objective of protection and conservation’ of the planet’s climate. Also, in *US–Gasoline*, the AB, in answering whether baseline establishment rules were ‘primarily aimed at’ the conservation of clean air, held that:

The baseline establishment rules, whether individual or statutory, were designed to permit scrutiny and monitoring of the level of compliance of refiners, importers and blenders with “the non degradation” requirements. Without baselines of some kind, such scrutiny would not be possible and the Gasoline Rule’s objective of stabilizing and preventing further deterioration of the level of air pollution prevailing in 1990 would be substantially frustrated. We consider that, given that substantial relationship, the baseline establishment rules cannot be regarded as merely incidentally or inadvertently aimed at the conservation of clean air in the United States for the purposes of Article XX (g).²²³

‘Relating to’ seems to suggest a rather loose relationship between the measure and its intended objective, conservation of an exhaustible resource. One would thus assume that other policy objectives (i.e. socio-economic objectives) may equally be an underlying rationale for the measure; however, as long as the measure still relates to the conservation of an exhaustible resource, it will pass muster. Requiring that it must be ‘primarily aimed’ at the conservation of an exhaustible resource requires a closer relationship between the measure and its underlying rationale.²²⁴ In *US–Shrimp*, the AB considered that the general structure and design of the measure in question were ‘fairly narrowly focused’ and that it was not a blanket prohibition of the importation of shrimp imposed without regard to the consequences of sea turtles; thus, the AB concluded that the regulation in question was a

²²¹Holzer K (2010) 12.

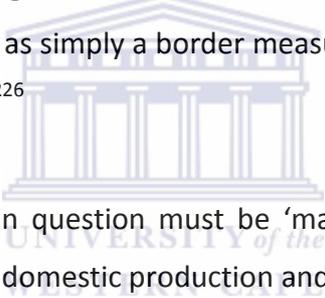
²²² AB Report *US–Shrimp* para 137.

²²³ AB Report *US–Gasoline* p. 19.

²²⁴Feris L (2009) 279.

measure ‘relating to’ the conservation of an exhaustible natural resource within the meaning of Article XX (g). The AB also found that the measure in question had been made effective in conjunction with the restrictions on domestic harvesting of shrimp, as required by Article XX (g).

However, for BCAs to pass this test, it is important to declare that a measure is aimed at reducing emissions and preventing carbon leakage and not at restoring competitive positions for domestic producers. Since BTAs are traditionally perceived in the WTO as fiscal measures which put into effect, in whole or in part, the destination principle in order to level taxation and domestic regulation systems of exporting and importing countries that ultimately creates equal competitive conditions for domestic and foreign production in the home and world markets, it would be difficult to escape a competition-related motive of a measure.²²⁵ Therefore, if intending to defend a measure under Article XX, it may be more reasonable to position a measure as simply a border measure (e. g an import tariff), and not as a border adjustment measure.²²⁶

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- iii. The measure in question must be ‘made effective in conjunction with restrictions on domestic production and consumption’.

The AB in *US–Gasoline* noted that this is only a requirement of ‘even handedness’ in the imposition of restrictions and that there is no textual basis for requiring identical treatment of domestic and imported products.²²⁷ In other words, if BCAs legislation in some of its details was to discriminate against imports as opposed to domestic products, the measure as a whole will still be found to meet the test, as was the case in *US–Gasoline*. Furthermore, the mere fact that the imposition of a measure was driven by carbon leakage concerns proves that a measure is made effective in conjunction with restrictions on the domestic market proves.²²⁸

²²⁵Holzer K (2010) 12.

²²⁶Holzer K (2010) 12.

²²⁷ AB Report *US–Gasoline* p, 21.

²²⁸Holzer K (2010) 13.

However, in the context of climate change, flowing from the provisions of Articles XX (b) and XX (g), a substantial link will need to be established between the trade measure and the environmental objective. It should be noted that in *Brazil–Retreaded Tyres* the AB recognised that certain complex environmental problems may be tackled only with a comprehensive policy comprising a multiplicity of interacting measures. The AB pointed out that the results obtained from certain actions – for instance, measures adopted in order to address global warming and climate change – can only be evaluated with the benefit of time.²²⁹

3.7.3 BCAs and extra-territorial rules under Article XX

In light of the analysis for justification of BCA measures under the provisions of Article XX, it will not be out of place to take into consideration the extra-territorial nature of these measures. Can a country through its measure impose its climate policy standards on another country? Or, should a country, on the territory of which emissions occurred, be held responsible for the changes in global climate and be forced to pay sanctions?²³⁰

To justify an extraterritorially applied domestic measure what is required is a ‘sufficient nexus’ between the country abroad and the consequences for the country imposing the measure.²³¹ Likewise, for BCAs measures applied at the border to be accepted, there must be a ‘sufficient nexus’ between carbon emissions in, for example, China and climate change consequences that such carbon emissions can have for the United States.²³² However, in the *Tuna–Dolphin* dispute,²³³ the panel in determining the extraterritorial effect of the measures imposed took a strict approach. The panel found a ban on tuna to be unjustifiable under the GATT Article XX (b) exception, because the ban in question was used to protect dolphins abroad and not within the territory of the country imposing the measure. The panel found that:

²²⁹ WTO-UNEP Report (2009) 109.

²³⁰ Holzer K (2010) 13.

²³¹ AB Report *US–Shrimp* para 133.

²³² Pauwelyn J (2007) 35.

²³³ *Tuna–Dolphin I: United States–Restrictions on Imports of Tuna*, DS21/R, 3 September 1991, unadopted, BISD 39S/155. It is important to note that the report of the panel has never been adopted and will therefore not have any legal effect. Reference is made to it so as to know the attitude of the WTO adjudicative bodies to extraterritorial measures.

If the broad interpretation of Article XX (b) suggested by the United States were accepted, each contracting party could unilaterally determine the life or health protection policies from which other contracting parties could not deviate without jeopardizing their rights under the General Agreement. The General Agreement would then no longer constitute a multilateral framework for trade among all contracting parties but would provide legal security only in respect of trade between a limited number of contracting parties with identical internal regulations.²³⁴

In *US–Shrimp* the AB in examining the extraterritorial effect of unilateral measures in respect of the ban placed on shrimps appeared to be tolerant. The AB found that:

It appears to us, however, that conditioning access to a member’s domestic market on whether exporting members comply with or adopt, a policy or policies unilaterally prescribed by the importing member, to some degree, be a common aspect of measures falling within the scope of one or another of the exceptions (a) to (j) of Article XX.²³⁵

Finally, the fact that climate change is perceived as a global problem reaching out beyond national bounds should be considered. This could add more weight to the justification of measures applied extraterritorially.²³⁶

3.7.4 BCAs and the conditions under the introductory phrase of Article XX

Finally, even if a BCA measure passes the ‘necessity’ test under Article XX (b) or the ‘exhaustible’, ‘relating to’, and ‘in conjunction with’ tests under Article XX (g) the BCA measures must satisfy the requirement of the chapeau to GATT Article XX. This Article requires that:

[M]easures are not applied in a manner which would constitute a means of arbitrary or unjustifiable discrimination between countries where the same conditions prevail, or a disguised restriction on international trade.²³⁷

²³⁴ Panel Report *Tuna–Dolphin I: United States–Restrictions on Imports of Tuna*, DS21/R, 3 September 1991, unadopted, BISD 39S/155.

²³⁵ AB Report *US–Shrimp* para 121.

²³⁶ Holzer K (2010) 14.

²³⁷ A similar provision is contained in Article 3.5 of the UN Framework Convention on Climate Change (UNFCCC), which provides that measures taken to combat climate change, including unilateral ones, should not constitute a means of arbitrary or unjustifiable discrimination or a disguised restriction on international trade.

The chapeau requires that the measure does not constitute an abuse or misuse of the provisional justification made available under one of the paragraphs of Article XX, that is to say, that the measure is applied in good faith.²³⁸ The AB in *US–Shrimp* explained the requirement of the chapeau as follows:

There are three standards contained in the chapeau: first, arbitrary discrimination between countries where the same conditions prevail; second, unjustifiable discrimination between countries where the same conditions prevail; and third, a disguised restriction on international trade. In order for a measure to be applied in a manner which would constitute “arbitrary or unjustifiable discrimination between countries where the same conditions prevail”, three elements must exist. First, the application of the measure must result in discrimination... Second, the discrimination must be arbitrary or unjustifiable in character... Third, this discrimination must occur between countries where the same conditions prevail. In *United States–Gasoline*, we accepted the assumption of the participants in that appeal that such discrimination could occur not only between different exporting members, but also between exporting members and the importing member concerned.²³⁹

This requirement serves to ensure that the right of members to avail themselves of exceptions is exercised in good faith to protect interests considered legitimate under Article XX, and not as a means to circumvent members’ obligations towards other WTO members.²⁴⁰ In *US–Gasoline* the AB held that:

The chapeau is animated by the principle that while the exceptions of Article XX may be invoked as a matter of legal right, they should not be applied so as to frustrate or defeat the legal obligations of the holder of the right under the substantive rules of the General Agreement. If those exceptions are not to be abused or misused, in other words, the measures falling within the particular exceptions must be applied reasonably, with due regard both to the legal duties of the party claiming the exception and the legal rights of the other parties concerned.²⁴¹

Meeting the requirement of the chapeau seems crucial for BCAs to be justified under Article XX, particularly since in recent years the WTO adjudicative bodies have moved from focusing on purely technical features of a measure to analysing the overall design of a

²³⁸ WTO-UNEP Report (2010) 109.

²³⁹ AB Report *US–Shrimp* para 150.

²⁴⁰ AB Report *Brazil–Retreaded Tyres* para 215.

²⁴¹ AB Report *US–Gasoline* p, 22.

measure, i.e. they have moved from over emphasising the subparagraphs of the article to putting more emphasis on the conditions of the chapeau.²⁴² In all cases where the AB found that the GATT Article XX exception was not met, it did so under the provision of the chapeau. For present purposes as well this phrase may well be the most important provision in the entire GATT Agreement.²⁴³ The legitimacy of the declared policy objective with a measure, and the relationship of that objective with the measure itself and its general design and structure are to be examined under the paragraphs and not the chapeau.²⁴⁴ It is important to note that the chapeau is not about BCA legislation as such, but about its 'detailed operating provisions' and how it is 'actually applied'. Thus, the standards of the chapeau project both substantive and procedural requirements.²⁴⁵

3.7.5 Testing BCA measures with regard to non-discrimination between countries with the same conditions

This requirement of the chapeau is to the effect that for any BCA legislation to be justified under the chapeau of Article XX there must not be arbitrary discrimination in the application of the measure 'between countries where the same conditions prevail'. The discrimination under Article XX (arbitrary or unjustifiable discrimination between countries where the same conditions prevail) differs in 'nature and quality' or 'go[es] beyond' the discrimination referred to earlier under national treatment (GATT Article III) and MFN (GATT Article I). Under Articles I and III, the discrimination is focused on 'like products', while under Article XX it is focused on 'countries where the same conditions prevail'. This requirement can be interpreted as a requirement to take account of conditions in different countries.²⁴⁶

Furthermore, the AB in *Brazil–Retreaded Tyres* held that determining whether discrimination is arbitrary or unjustifiable usually involves analysis that relates primarily to the cause or the rationale of the discrimination.²⁴⁷ The AB further held that there is arbitrary

²⁴²Holzer K (2010) 15.

²⁴³Pauwelyn J (2007) 37.

²⁴⁴ AB Report *US–Shrimp* para 149.

²⁴⁵ AB Report *US–Shrimp* para 160.

²⁴⁶Holzer K (2010) 16.

²⁴⁷ AB Report *Brazil - Retreaded Tyres* para 225.

or unjustifiable discrimination when a measure provisionally justified under a paragraph of Article XX is applied discriminatorily 'between countries where the same conditions prevail', and when the reasons given for this discrimination bear no rational connection to the objective falling within the purview of a paragraph of Article XX, or would go against the objective.²⁴⁸

However, it has been argued that the distinction between discrimination under Articles I and III and discrimination under Article XX should lie in the realm of formal and substantive discrimination. Formal discrimination denotes treatment in which circumstances are not factored in. In other words, from a trade perspective all WTO members are treated the same regardless of their circumstances. This formal discrimination approach is illustrated by the use of 'like product' used in Article I and Article III analysis. Once two products are found to be alike, no discrimination is allowed, regardless of the circumstances that may exist in their countries of origin, and, from an environmental perspective, regardless of the impact they may have on the environment.²⁴⁹ Substantive discrimination, on the other hand, takes into account the circumstances of a country. In other words, those who are differently situated are treated differently. That this is the form of discrimination operating in Article XX seems clear from the wording of the chapeau, which refers to arbitrary or unjustifiable discrimination between countries where the same conditions prevail.²⁵⁰

Weirs is of the opinion that it would seem that in more complicated so-called de facto discrimination cases, it would be more difficult to keep the objective of the measure completely out of the discrimination analysis under Articles I and III. He further points out that, given the strong link the AB now makes between the objective of a measure and its discriminatory application, the doubling of the discrimination analysis looms large.²⁵¹

Flowing from WTO jurisprudence, when examining whether a BCA legislation amounts to arbitrary or unjustifiable discrimination between countries where the same conditions

²⁴⁸ AB Report *Brazil–Retreaded Tyres* para 227.

²⁴⁹ Feris L (2009) 280-81.

²⁵⁰ Feris L (2009) 280-81.

²⁵¹ Weirs J 'Multilateral negotiations and unilateral discrimination from a World Trade Organization legal perspective' in *Climate and Trade Policies in a Post-2010 World*, UNEP, (2009) 93 available at <http://www.unep.org/climatechange/LinkClick.aspx?fileticket=zb4Wio0kiAI%3D&tabid=389&language=en-US> (accessed 18 February 2011).

prevail, the AB, based on its previous decisions in environmental disputes, will most likely refer to the following elements:²⁵²

- i. Can a country imposing a BCA measure require that its climate policy be copied by exporting countries or does it essentially take into consideration climate policy measures obtainable in exporting countries?

This requirement raises the question as to whether a country imposing a BCA measure requires that its climate policy be copied by exporting countries or whether it accepts and takes into account climate policy measures previously taken in exporting countries to combat climate change.

In the *US–Shrimp* case the US required all other exporting members, if they wished to exercise their GATT rights, to adopt essentially the same policy (together with an approved enforcement program) as that applied to, and enforced on, US domestic shrimp trawlers. The AB, in rejecting the ban, found that it has an ‘intended and actual coercive effect on the specific policy decisions made by foreign governments’.²⁵³ When, in response, the US no longer required the ‘adoption of essentially the same policy’ but rather the ‘adoption of a program comparable in effectiveness’ to that of the US program, the AB held that this ‘allows for sufficient flexibility in the application of the measure so as to avoid “arbitrary or unjustifiable discrimination”’.²⁵⁴

This interpretation may, however, bring about the following practical implications. On the one hand, this may force a country like the US to consider whether a foreign country has already imposed emissions cut or otherwise addressed climate change and, in turn, to impose lower requirements for imports from countries that have such policies in place. On the other hand, this may oblige developed countries to take into consideration the climate policy measures of developing countries, and to impose a graduated import tax or

²⁵² This framework of examination of a measure under the chapeau was constructed by Joost Pauwelyn in the working paper cited earlier. See Pauwelyn J (2007) 34-41.

²⁵³ AB Report *US–Shrimp* para 161 and 163.

²⁵⁴ AB Report *United States–Import Prohibition of Certain Shrimp and Shrimp Products –Recourse to Article 21.5 of the DSU by Malaysia*, WT/ DS58/RW, para. 144 adopted 21 November 2001.

regulation depending on the stage of economic development of the foreign country in question.

This practical implication would bring about comparison between emissions reduction systems and climate policies in different countries. Such comparison would be a very difficult task, especially when comparisons were being made between price-based and non price-based climate policy measures.²⁵⁵ However, things become more complicated when, for instance, exemptions are made for goods from countries having a cap-and-trade system in place comparable to that in the importing country, while other exporting countries have no cap-and-trade system but have regulatory restrictions on emissions of its industry. In this case, the answer to the question as to whether the same conditions prevail in the countries that are compared to each other becomes less clear-cut.²⁵⁶

Furthermore, this raises an interesting question as to how the effectiveness of climate policy measures (comparable action)²⁵⁷ put in place by countries should be assessed. It has, however, been argued that to define comparable efforts towards climate mitigation and adaptation, differences in national circumstances (such as current level of development, per capita GDP, current and historical emissions, emission intensity, and per capita emissions) clearly need to be taken into account.²⁵⁸ It has also been argued in light of the *US–Shrimp* dispute that if climate parties fail to adopt an international standard when determining comparability, and have not made an effort to discipline the use of unilateral measures by parties, the panel will have no choice but to fall back on the *US–Shrimp* jurisprudence, and may be influenced by the comparable standard put in place by the US.²⁵⁹ To take account of

²⁵⁵Holzer K (2010) 17.

²⁵⁶Weirs J (2010) 93.

²⁵⁷ In light of the lesson drawn from the *US–Shrimp* dispute, the US included the term ‘comparable action’ in its draft climate change legislation. Thus, ‘comparable’ is the standard by which it will assess the efforts being made by its trading partners to limit their GHG emissions.

²⁵⁸ Zhang ZX ‘Encouraging developing country Involvement in a post-2012 climate change regime: Carrots, sticks or both?’ in *Climate Change and Trade Policies in a Post-2012 World*, UNEP, (2009) 84 available at <http://www.unep.org/climatechange/LinkClick.aspx?fileticket=zb4Wio0kiAI%3D&tabid=389&language=en-US> (accessed 18 February 2011).

²⁵⁹Werksman J ‘How should a post-2012 climate agreement address trade-related environmental measures?’ in *Climate and Trade Policies in a Post-2012 World*, UNEP, (2009) 31 available at

the conditions prevailing in other countries might also imply that a country which imposes BCAs on imports would have to check and ensure that the products imported from other countries had not already been taxed with a similar tax on carbon in their home countries and had received no tax rebates on exportation. Otherwise, there would be a problem of double taxation as a consequence of ignorance of conditions prevailing in other countries.²⁶⁰

Finally, this requirement of the chapeau to take account of conditions prevailing in different countries might also enable a country imposing a BCA measure to differentiate the strictness of a measure between countries (developing and developed countries) so long as 'different conditions' prevail in those countries, and even to exempt products of LDCs.²⁶¹ In other words, the chapeau of Article XX might force the imposing country to have a lower, or even no, carbon restrictions on imports from developing countries, especially the very poor ones.

- ii. Can the implementation and administration of proposed BCA legislation satisfy the conditions of 'basic fairness and due process'?

In examining this element, the WTO adjudicative bodies may look at the procedure of applying the carbon measure and whether the process is transparent and predictable. The system also has to be non-discriminatory in its procedures.

The issue of when the measure will apply to other countries to respond with comparable climate mitigation measures is crucial. It is expected that developing countries need reasonable time to develop and implement national climate change policies and this is consequent upon the fact that they are not at par with the developed countries and as such will need more time to adjust to the realities on ground. In *US–Shrimp*, the AB noted as follows:

The length of the "phase in" time is inconsequential for exporting countries desiring certification. That period relates directly to the onerousness of the burdens of complying

<http://www.unep.org/climatechange/LinkClick.aspx?fileticket=zb4Wio0kiAl%3D&tabid=389&language=en-US> (accessed 18 February 2011).

²⁶⁰Holzer K (2010) 18.

²⁶¹Pauwelyn J 'Testimony Before the Subcommittee on Trade of the House Committee on Ways and Means' (2009) available at <http://democrats.waysandmeans.house.gov/media/pdf/111/pauw.pdf> (accessed 18 March 2011).

with the requisites of certification and the practical feasibility of locating and developing alternative export markets for shrimp. The shorter that period, the heavier the burdens of compliance.²⁶²

Further, it has been suggested in light of the US draft climate legislation that the grace period should be at least 10 years after the US emissions trading scheme starts working. To take any comparable actions within a shorter time-frame would not be viable for developing countries, given their limited resources and weak environmental institutions. During this grace period, developed countries also need to provide incentives to encourage developing countries to do more. In other words, carrots should serve as the main means. Sticks can be incorporated, but only if they are credible, realistic and serve as a useful supplement.²⁶³

- iii. Did countries proposing to impose a BCA measure try other, less trade-restrictive ways to address the problem, such as engaging in 'serious, across-the-board negotiations with the objective of concluding bilateral or multilateral agreements' to address climate change?²⁶⁴

The conclusion of an agreement is not paramount at this stage. What is of relevance is for there to be serious 'good effort' to negotiate an international agreement among the parties concerned.²⁶⁵ It is also important to note that such negotiations must be done on a non-discriminatory basis.²⁶⁶

However, the above reasoning of the AB has raised some interesting puzzles in respect to regional trade agreements. Thus, if, for instance, the EU links its partners of the European Economic Area to its emissions trading system (ETS) and excludes their exports to the EU from a carbon adjustment obligation, does that mean it must devote similar efforts to include all WTO members into its ETS? In other words, what is the relationship between

²⁶² AB Report *US–Shrimp* para 174.

²⁶³ Zhang ZX (2009) 84.

²⁶⁴ AB Report *US–Shrimp* para 166.

²⁶⁵ AB Report *United States– Article 21.5* para. 134.

²⁶⁶ AB Report *US–Shrimp* para 169-72. The US was found to have negotiated seriously with some (five countries) but not with other members (including the appellees). The AB found that it plainly amounted to discrimination and was unjustifiable.

GATT Article XX and GATT Article XXIV on regional trade agreements in the climate policy context?²⁶⁷

It has been noted based on the *US–Shrimp* dispute that the AB found an effort to negotiate a multilateral agreement with other countries only in *US–Shrimp* relating to paragraph (g) of Article XX, whereas in the disputes falling under other paragraphs of Article XX this requirement was not raised. This leads to the conclusion that the requirements of the chapeau of Article XX can be interpreted differently depending on the paragraph of the Article under which the measure falls.²⁶⁸

It is also important to note that, flowing from the facts of *US–Shrimp*, the AB pointed to the fact that the US has not ratified three multilateral environmental agreements (MEAS) relating to turtle conservation. This, however, raises the question of whether the non-ratification of the Kyoto Protocol or a future international climate change agreement can deprive a country of the right to seek the justification of BCA measures under GATT Article XX.²⁶⁹ This will be left for the WTO adjudicative bodies to decide.

3.7.6 Testing BCAs with respect to the requirement of disguised restriction on international trade as provided in the chapeau

The requirement of a measure not being a disguised restriction on international trade is a very important measure that has to be fulfilled under the provision of the chapeau. The AB in the *US–Gasoline* case noted that ‘concealed’ or ‘unannounced’ restriction or discrimination in international trade does not exhaust the meaning of ‘disguised restriction’. The kinds of considerations pertinent in deciding whether the application of a particular measure amounts to ‘arbitrary or unjustifiable discrimination’ may also be taken into account in determining the presence of a disguised restriction on international trade.²⁷⁰ The AB noted as follows:

“Arbitrary discrimination”, “unjustifiable discrimination” and “disguised restriction” on international trade may, accordingly, be read side-by-side; they impart meaning to one another. It is clear to us that “disguised restriction” includes disguised discrimination in international trade. It is equally clear that

²⁶⁷ Weirs J (2009) 91.

²⁶⁸ Holzer K (2010) 20.

²⁶⁹ Holzer K (2010) 20.

²⁷⁰ AB Report *US–Gasoline* p. 25.

concealed or unannounced restriction or discrimination in international trade does not exhaust the meaning of “disguised restriction”, whatever else it covers, may properly be read as embracing restrictions amounting to arbitrary or unjustifiable discrimination in international trade taken under the guise of a measure formally within the terms of an exception listed in Article XX. Put in a somewhat different manner, the kinds of considerations pertinent in deciding whether the application of a particular measure amounts to “arbitrary or unjustifiable discrimination” may also be taken into account in determining the presence of a “disguised restriction” on international trade. The fundamental theme is to be found in the purpose and object of avoiding abuse or illegitimate use of the exceptions to substantive rules available in Article XX.²⁷¹

It is also important to note that an environmental measure may not constitute a ‘disguised restriction on international trade’, i.e. may not result in protectionism. In past cases, it was found that the protective application of a measure could most often be discerned from its ‘design, architecture and revealing structure’.²⁷² For instance, in *US–Shrimp (Article 21.5)*, the AB found that the fact that the revised measure allowed exporting countries to apply programmes not based on the mandatory use of turtle excluder devices (TEDs), and offered technical assistance to develop the use of TEDs in third countries, showed that the measure was not applied so as to constitute a disguised restriction on international trade.²⁷³

3.8 Conclusion

This chapter has examined the compatibility of BCA measures with the existing WTO/GATT rules, considering the fact that such measures are not expressly provided for under the existing legal framework. It is not clear whether BTAs on carbon emission costs are permitted under the current rules on BTAs considering the fact that this tax is levied not on products but on the production methods. However, even if they are not permitted by those rules, they could still be justified under Article XX of the GATT. Additionally, based on the above analysis, it is crystal clear that GATT Articles I: 1 and III: 2 place some likely constraints on the implementation of BCAs. These constraints are not over limiting and can also be justified under the provision of Article XX. In relying on Article XX, countries proposing the imposition of BCAs can rely either on paragraph (b) for a measure to protect human, animal or plant life or health, or paragraph (g) for a measure relating to the conservation of exhaustible natural resources, provided that the requirement of the chapeau of Article XX is met. Flowing from the above analyses, justifying a BCA measure under paragraph (b) will be

²⁷¹ AB Report *US–Gasoline* p. 25.

²⁷² WTO-UNEP Report (2010) 110.

²⁷³ AB Report *US–Shrimp–Article 21. 5*.

very difficult considering the requirement of 'necessity'. Thus, a BCA measure will most likely be justified under paragraph (g), 'relating to', which requires a less stringent requirement.

Furthermore, justification under Article XX is largely dependent on the requirement of the chapeau of Article XX. It requires that an implementing country must take into account conditions in other countries. In other words, it requires essentially that the measure should be flexible enough to treat more favourably imports from countries which had taken emission reduction efforts in any form, and to differentiate in treatment depending on a country's level of economic development. If not, the tax could be found to amount to unjustifiable discrimination between countries where the same conditions prevail. It also requires that a measure should take into consideration the rights and obligations of an exporting country under an international climate agreement.

Finally, this mini-thesis presumes that for a BCA measure to fit within the scope of Article XX it will be reasonable to design it not as a BTA measure but rather as a border measure (e. g carbon tariff). This is, however, premised on the fact that BTAs may fall outside the scope of Article XX considering the motive behind it, which is to address the issue of competition by leveling the playing field of producers, and also because of the traditionally symmetric application of border adjustment -- not only imposing emissions charges on imports, but also giving rebates (of allowances/emission costs) to exporters, which would run contrary to the climate policy goals. A tariff linked to carbon will most likely be qualified as an ordinary customs duty in excess of a bound tariff ceiling under a country's schedule of concessions and therefore found to be a violation of Article II: (b). The next chapter will however examine the possible institutional solutions that can be adopted to provide a last long solution to the likely violation of BCA measures with the WTO law.

CHAPTER FOUR

Institutional solutions within the WTO and the UNFCCC

4.1 Introduction

Having examined the likely violations of the General Agreement on Tariffs and Trade (GATT) rules if border carbon adjustments measures (BCAs) are implemented, and the possible justification of such violations under Article XX of the GATT, it is important to note that the justification of a measure can only be achieved through litigation between the parties involved in the dispute. This means that the problem of violation of the GATT will have to be brought before the world trade organisation (WTO) adjudicative bodies each time anew if there is any violation of WTO rules. Therefore, there seems to be a need for a long-lasting solution to the problem of WTO violation of the proposed implementation of BCA measures.

Different proposals have been made to this effect. One proposal is that WTO members should introduce a new agreement, the General Agreement on Trade and Emissions (GATE), to reduce greenhouse gas (GHG) emissions through international trade.²⁷⁴ Another proposal is to adopt a protocol or resolution on trade-related climate policy measures among the parties to the United Nation Framework Convention on Climate Change (UNFCCC).²⁷⁵ It has also been suggested that a working group shared by the WTO and UNFCCC be established.²⁷⁶ Suffice to say, whatever track is chosen, it is unfeasible today to create one global super-regulatory forum for gradual co-ordination and harmonisation of trade-related instruments of climate policy.²⁷⁷ This chapter examines a range of possible institutional

²⁷⁴Mclsaac C 'Opening a gate to reduce global emissions: Getting over and into WTO' (2010) *Journal of World Trade* 1053-81.

²⁷⁵Holzer K 'Trade and climate change interaction: Dealing with WTO law Inconsistencies of carbon related adjustment measures' Research paper (2010) 23 available at http://stockholm.sqir.eu/uploads/Holzer_Working%20paper_23sept.pdf (accessed 9 January 2011).

²⁷⁶Abbas M 'Trade policy and climate change: Options for a European border adjustment measure' Working paper (2008) 10 available at http://www.fondapol.org/wp-content/uploads/pdf/documents/DT_Environnement_et_fiscalite_Lenjeu_de_la_taxe_carbone_ENG.pdf (accessed 11 March 2011).

²⁷⁷Holzer K (2010) 23.

solutions under the WTO and UNFCCC in addition to the available justification under Article XX of the GATT.

4.2 Solutions within the WTO

4.2.1 Dispute settlement approach

The most obvious way to determine whether BCAs are compatible with WTO agreements is to let the dispute settlement system run its course. Eventually, following this approach, a record of decided cases will define the contours of WTO obligations.²⁷⁸ To date, there is no WTO case law that clarifies for us whether an energy tax such as a carbon tax is a direct tax or an indirect tax. Nor is there any WTO case law that tells us whether a tax on inputs, such as fossil fuels, that are not physically incorporated into a final product is a tax that can be adjusted at the border under WTO rules. Ideally, these unanswered questions should be answered by the consensus of WTO members through negotiation. Necessarily, they may have to be answered by WTO jurists in litigation.²⁷⁹ However, the possible outcome of such litigation would be difficult to predict. On the one hand, it is unlikely that the WTO adjudicative bodies would authorise trade-restrictive measures which are not even authorised by the relevant Multilateral Environmental Agreement (MEA), i.e. the UNFCCC/Kyoto Protocol. On the other hand, the public awareness of the importance of climate change mitigation is so strong that it might influence a WTO panel's decision to accept such measures.²⁸⁰

The advantage of the dispute settlement approach is that parties to the dispute will not lose anything from the outcome of the litigation, not even a defendant (i.e. a country which imposed a measure). Even if a measure were found to violate WTO law, there would be no sanctions imposed on a country for its past action, and the country could thus change its legislation upon an eventual decision of a panel or the Appellate Body (AB), or offer a compensation for its refusal to comply with the decision under Article 22 of the Dispute

²⁷⁸Hufbauer GC & Kim J 'The WTO and climate change: Challenges and options' Working paper (2009) 12 available at <http://www.iie.com/publications/wp/wp09-9.pdf> (accessed 10 April 2011).

²⁷⁹Bacchus J 'Questions in Search of Answers: Trade, Climate, and the Rule of Law' Keynote address (2010) 3-4 available at <http://www.gtlaw.com/portalresource/bacchus1> (accessed 16 February 2011).

²⁸⁰Holzer K (2010) 24.

Settlement Understanding (DSU). In other words, WTO remedies are purely prospective and not retrospective.²⁸¹ For example, in the *Hormone-treated Beef* dispute,²⁸² the WTO repeatedly condemned the European Communities (EC) for unjustifiably banning hormone-treated US beef. Yet, the EC got away with this 'illegal' ban, first by suffering US retaliatory import restrictions for years, and secondly by offering the US more market access elsewhere, in a move that recently ended the dispute.²⁸³

However, the dispute settlement approach has its own shortcomings. First, is that it could take a long time before clear guidelines becomes apparent. A big WTO case can easily take three years to run its full course from consultations to a panel decision and finally to a ruling by the AB. As trade battles are fought some countries may become more devoted to winning legal cases than fighting the common enemy, climate change.²⁸⁴ Secondly, in light of the political sensitivity about this issue in every part of the world, leaving WTO jurists to judge such disputes may result in a perilous political overload of the WTO dispute settlement system.²⁸⁵ Thirdly, is that some countries, faced with an adverse ruling, may come to question the legitimacy of WTO pronouncements on a subject as contentious as climate change. If the AB is too lenient on trade-related climate measures, by according users of unilateral subsidies and barriers excessive deference, that could open the door to opportunistic protectionism and rent-seeking behavior. If the AB is too strict, countries may ask why the WTO is making itself an opponent of a measure designed to save the planet.²⁸⁶

²⁸¹Pauwelyn J 'Testimony Before the Subcommittee on Trade of the House Committee on Ways and Means' (2009) 17 available at <http://democrats.waysandmeans.house.gov/media/pdf/111/pauw.pdf> (accessed 18 March 2011).

²⁸² Appellate Body Report, *EC Measures Concerning Meat and Meat Products (Hormones)*, WT/DS26/AB/R, WTDS48/AB/R, adopted 13 February 1998, DSR: I, 135.

²⁸³Pauwelyn J (2009) 17.

²⁸⁴Hufbauer GC & Kim J (2009) 12.

²⁸⁵Bacchus J (2010) 2.

²⁸⁶Hufbauer GC & Kim J (2009) 13.

4.2.2 Amendment of relevant WTO rules

Another proposal that has been suggested, is to amend the Articles of the GATT and other parts of the WTO legal text to accommodate environmental controls.²⁸⁷ In other words, to 'green' the GATT and other WTO agreements by rewriting longstanding WTO rules to take climate and other environmental considerations more fully into account.²⁸⁸ It has been suggested that the provision of Article XX of the GATT be amended by inserting a provision that creates an exception for multilateral environmental agreements (MEAs) or by interpreting Article XX in a manner that would validate existing MEAs and allow for future MEAs.²⁸⁹

However, this is going to be a very difficult task to achieve considering the procedure of amendment under the WTO. Pursuant to Article X: 2 of the Marrakesh Agreement establishing the WTO, changes to the vital provisions of WTO agreements, including the MFN principle of GATT Article I and the tariff concessions of GATT Article II, can take effect only upon acceptance of all WTO members. Amendments to other provisions, as well as decisions and understandings on interpretation of WTO provisions (Article IX: 2 of the WTO Agreement), require two-thirds of WTO members' votes. To achieve such consensus at this critical time, when developing countries are opposing the implementation of BCA measures, would be practically impossible.²⁹⁰

4.2.3 A waiver

Another suggestion that has been put forward which is less demanding than amendment of the WTO existing agreements is the granting of a waiver to WTO obligations for trade commitments written in a climate agreement. A waiver under the WTO rules requires approval from at least three-quarters of members at the ministerial conference and is usually given only in exceptional circumstances, for a limited time, and can only be extended

²⁸⁷Hufbauer GC & Kim J (2009) 14.

²⁸⁸Bacchus J (2009) 2.

²⁸⁹Feris L (2010) 'Multilateral trade policies and measures in post-Kyoto structures' in Draper P & Mbirimi I (eds) *Climate Change and Trade: The Challenges for Southern Africa* (2010) 116. It has, however, been suggested that Article XX (h), which creates an exception for trade measures imposed pursuant to obligations in international commodity agreements, could act as a model for such an amendment.

²⁹⁰Holzer K (2010) 25.

based on justified reasons.²⁹¹ This would not provide any permanence to the likely violation of WTO rules. Furthermore, a measure applied under a waiver can still be challenged under Article XXIII (b), which provides for the grounds on non-violation leading to nullification or impairment of WTO rights. Whether this route has much promise largely depends on the extent of overlap between signatories to the climate change agreement and the WTO membership. If a significant number of WTO members do not sign the climate accord, the prospects of a waiver seem slight.²⁹²

4.2.4 Bilateral approach: BCA provisions in regional or bilateral trade agreements

The WTO rules allow for the possibility of regional integration and bilateral agreements for members who wish to liberalise at a quicker pace. This allows a small group of countries to negotiate rules and commitments that go beyond what is often possible at the multilateral level.²⁹³ Over the past few years the number of regional trade agreements (RTAs) has significantly increased and is expected to reach 400 if the RTAs currently under negotiations are to be concluded. RTAs have become so widespread that practically all WTO members are now parties to one or more of them. However, it might be possible for countries who are involved in RTAs to include provisions on BCAs which will prevent the imposition of BCA measures on countries who are parties to the RTAs.²⁹⁴ The experience of the WTO shows that many sensitive trade-related issues were first negotiated bilaterally or at the regional level and only then were brought to the multilateral negotiations in the WTO.²⁹⁵

Why are countries pursuing RTAs? Continuous stalemates of negotiations at the WTO and ensuing frustrations could be the reasons. In a broader sense, however, such a phenomenon in fact is a manifestation of how, when it comes to contentious global issues, forging for a

²⁹¹ Article IX: 3 of the Marrakesh Agreement.

²⁹² Hufbauer GC & Kim J (2009) 14.

²⁹³ Kim JA 'Harnessing regional trade agreements for the post-2012 climate change regime' in *Climate and Trade Policies in a Post-2012 World*, UNEP, (2009) 57-64.

²⁹⁴ Kim JA (2009) 57-64. For the purposes of this mini-thesis, RTAs includes bilateral and regional trade agreements, free trade areas (FTAs), customs union (CU), economic partnerships, and other arrangements aiming at trade liberalisation between the parties. The legal basis for RTAs can be found in Article XXIV of the GATT.

²⁹⁵ Holzer K (2010) 28.

regional consensus through regional co-operation can be instrumental.²⁹⁶ More often than not the merit of regional forums is underestimated, but greater use of regional approaches could open possible avenues to advance negotiations, for expanding the use of regional forums would mean that an increasing number of forums would be available for countries to pursue their agendas and interact through the forums, which might in turn allow them to surmount political obstacles that impede negotiations.²⁹⁷

In addition, regional forums can serve as a useful venue for setting an agenda that can provide an additional space for discussing specific issues. They can also provide countries with an opportunity to co-ordinate their positions among themselves before they move to the multilateral arena, and so to reach consensus before they face the pressures of drafting the text. In this way, regional forums may provide a platform for co-operation, and serve as a bridge between the global and national.²⁹⁸ Furthermore, regional negotiations involve fewer participants and their interests in the outcome of such negotiations are usually coherent.

In view of this, environmental provisions, and provisions on climate policy trade-related measures in particular, could just be part of a much broader agreement on economic co-operation, which would include trade, investment, government procurement and other issues. Therefore, even if such provisions were contrary to the interests of one of the parties to the agreement, there would always be something which could be given by the other parties in compensation for this, especially if one of the parties is a developed country which can exercise its political and economic power or can offer concessions in other areas.²⁹⁹ Today, many RTAs, especially between the Organisation for Economic Co-operation and Development (OECD) and developing countries, contain environmental provisions relating to the implementation of climate policy. Some bilateral agreements include chapters or annexes on co-operation on issues under the Kyoto Protocol. For instance, the Agreement between Japan and Mexico for the Strengthening of the Economic

²⁹⁶Kim JA (2009) 57-64.

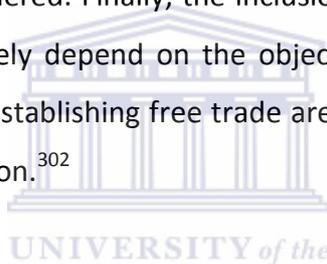
²⁹⁷Kim JA (2009) 57-64.

²⁹⁸Kim JA (2009) 57-64.

²⁹⁹Holzer K (2010) 28.

Partnership provides, in its Article 147 on environmental co-operation, to promote capacity and institution building related to the implementation of the Clean Development Mechanism (CDM) projects under the Kyoto Protocol. Other RTAs contain provisions on the liberalisation of trade in environmental goods and services.³⁰⁰

Despite the potential opportunities presented by RTAs in the context of addressing climate change, a number of challenges remain. One of such challenge is that the RTAs regime is still new and evolving. As of today, there are only a few RTAs whose implementation of environmental provisions has been evaluated. Thus, it remains to be seen whether environmental co-operation provisions reflected in a number of RTAs have been successfully implemented, and, moreover, whether the potential contribution of RTAs to tackling climate change will be realised.³⁰¹ Nevertheless, the option of RTAs to address climate change issues needs to be further considered. Finally, the inclusion of BCA measures in regional or bilateral agreements would largely depend on the objectives, nature and scope of these agreements. Some RTAs aim at establishing free trade areas, while others seek to establish partnerships or regional integration.³⁰²



4.2.5 Plurilateral approach: A code of good practice on border adjustments

Hufbauer, Charnovitz and Kim propose a WTO Code of good practice on GHGs Emissions control which will delineate a large 'green space' for measures that are designed to limit GHG emissions both within the territory of the member country and globally.³⁰³ They define 'green space' as a policy space for climate measures that are imposed in a manner broadly consistent with core WTO principles even if a technical violation of WTO law occurs. Measures that conform with the 'green space' rules would not be subject to challenge in WTO dispute settlements by governments subscribing to the Code. In other words, there would be a 'peace clause' to head off disputes in the WTO between countries that subscribe

³⁰⁰ Kim JA (2009) 57-64.

³⁰¹ Kim JA (2009) 57-64.

³⁰² Kim JA (2009) 57-64.

³⁰³ Hufbauer GC, Charnovitz S & Kim J *Global Warming and the World Trading System* (2009) 103.

to this Code. If a government did not subscribe to the Code, then the code would have no effect on that government's obligations and procedural rights in the WTO.³⁰⁴

The Code is designed to address issues related to production process methods (PPM)-related climate policy measures, such as carbon taxes, emission allowance requirements, and carbon-intensity standards, to free distribution of allowances from government to domestic firms and use of non-specific climate-related domestic subsidies, i.e. the measures which otherwise would constitute a violation of GATT Article III: 2, the Agreement on Technical Barriers to Trade, and the Agreement on Subsidies and Countervailing Measures. This Code is also designed to address issues relating to 'comparable action' taken by countries.³⁰⁵

Furthermore, Hufbauer, Charnovitz and Kim propose the following guidelines for the 'green space'. First, producer responsibility for the climate externalities of exported production should be maintained, but importing nations should be allowed to take additional measures, consistent with their national regimes, to address the externalities of consumption. Thus, the rule for exports would be that no GHG control measure shall accord more favourable treatment to exported products than to like products used or consumed domestically by the member country. In other words, rules akin to the 'origin system' for border tax adjustment (BTA) shall apply to exports of carbon-intensive products, so that trade-related GHG measures are not waived for exports. It is believed that this would achieve two goals: (1) it would simplify international accounting of emissions between two countries that both impose equivalent GHG control on imported goods, and (2) it would discourage countries from promoting carbon-intensive production for shipment to countries that do not impose GHG control measures on imported goods, or that impose lighter controls than the exporting country.³⁰⁶

Secondly, to encourage other countries to impose their own carbon taxes on production, whether for domestic use or export use, it is proposed to take account of the amount of

³⁰⁴Hufbauer GC, Charnovitz S & Kim J (2009) 103.

³⁰⁵Hufbauer GC, Charnovitz S & Kim J (2009) 104.

³⁰⁶Hufbauer GC Charnovitz S & Kim J (2009) 104-109.

taxes paid by foreign producers in their countries and not rebated on exportation, so that the revenue will be kept by the government of an exporting country.³⁰⁷

Thirdly, free allocation of allowances would not be deemed to be a subsidy, unless the distribution is export-contingent. As regards climate subsidies, they would not be regarded as prohibited or actionable, unless they were specific, or export-contingent, or encouraged the use of domestic over imported goods. An export subsidy could be allowed, however, if the subsidised export replaced a traditional, carbon-intensive energy production with an alternative energy source in the importing country. For this, the exporting country's government would have to make public a credible statement from the importing country's government, confirming the replacement.³⁰⁸ Also, members of the code could agree to allow other Code members to impose trade measures on them in response to non-compliance with international commitments. It is assumed that the workability of such an approach would decrease the amount of complaints to the WTO.³⁰⁹

However, the implementation of the Code in practice may be faced with some difficulties. First, there is a problem with the legal form of the Code. It has been argued by proponents of the Code that if it qualifies as a plurilateral WTO agreement, then the WTO dispute settlement body could be used by Code members. If the Code is outside the WTO, then a WTO panel could be asked to take the Code into account as an *inter se* agreement among parties.³¹⁰ It is also important to note that this legal form has some obvious shortcomings: first, in order to be added to Annex 4 of the WTO agreement, a consensus of all WTO members would be required to add it formally to the WTO's treaty. It seems highly unlikely that such consensus would be found, as not many WTO members would be willing to give the green light to carbon-related trade restrictions, even if the Code were limited only to a plurilateral arrangement.³¹¹ Secondly, it is not clear how many and which WTO members

³⁰⁷Hufbauer GC Charnovitz S & Kim J (2009) 104-109.

³⁰⁸Hufbauer GC Charnovitz S & Kim J (2009)104-109.

³⁰⁹Hufbauer GC Charnovitz S & Kim J (2009)104-109.

³¹⁰Hufbauer GC Charnovitz S & Kim J (2009) 103.

³¹¹Bacchus J (2010) 6.

would sign such a plurilateral agreement. Non-participation of major GHG emitters would make the Code hollow.³¹²

Finally, it is not clear how narrowly defined the term ‘technical violation’ is and how different it is from a violation of core ‘WTO principles’. It seems to be quite a vague and disputable issue that might create many obstacles for effective settlement of disputes between WTO members, should they arise.³¹³

4.2.6 Peace clause

At a much lower level of ambition than a Code, amendment or plurilateral approach, it has been proposed that key WTO members should consider adopting a time-limited ‘peace clause’ in their national legislation. This clause would prohibit any challenges in WTO dispute settlement to certain national actions taken to address climate change while the world works toward the conclusion of global climate treaty. This could be by adoption of a ‘decision’ by WTO members interpreting the WTO Agreement, which would require the support of three-quarters of the members.³¹⁴

The great advantage of a peace clause approach is that it buys time. One disadvantage, however, as the WTO itself experienced with respect to the peace clause over agricultural subsidies adopted in the Doha Round, is that negotiations might not move with energy or speed. A second disadvantage is that during the peace clause period the urgency of limiting GHG emissions might be diluted. Some developed countries might go easy on their own GHG controls due to competitiveness concerns, while some developing countries might feel less pressure to flatten their GHG trajectories.³¹⁵

4.3 Solutions within the UNFCCC

The UNFCCC can also be used as an avenue to address trade-related climate policy measures. According to Pascal Lamy, Director-General of the WTO, the WTO is currently overloaded with the task of the Doha Development Agenda, and to become involved now in

³¹² Bacchus J (2010) 6.

³¹³ Holzer K (2010) 26.

³¹⁴ Bacchus J (2010) 3.

³¹⁵ Hufbauer GC Kim J (2010) 17.

extra negotiations on the permissibility of trade-related climate policy measures would lead to frustration. He further emphasises that the relationship between trade and climate change would be best defined by an international accord on climate change that embraces all polluters. In other words, he suggests that trade-related climate policy measures be addressed by a post-Kyoto Agreement between parties to the UNFCCC.³¹⁶

Suffice to say, a resolution or a protocol on climate policy border adjustment measures that was adopted within the UNFCCC would not be legally binding for the WTO adjudicative bodies, were a dispute to be brought to the WTO.³¹⁷ The ideal solution would be to have provisions on BCAs and other trade-related measures in a comprehensive international post-Kyoto climate agreement with its own dispute settlement system deciding on compliance with these rules, and in parallel to have an agreement between WTO members on the relationship between climate change and the WTO agreements. In this case, all conflicts between the two bodies of international law would be precluded. However, given the different interests of the negotiating partners both in the UNFCCC and in the WTO, this solution is hardly feasible.³¹⁸



The issue of BCAs is one of the most contentious in the UNFCCC negotiations on a future climate regime. Developing countries such as China and India are vehement opponents of such measures, as they fear that this would be just another excuse for protectionism and would considerably impede their exports of carbon-intensive products. The culmination of discussions over the possibility to impose such measures on the part of developed countries was reached by the end of the preparations to the Conference of Parties (COP 15) in Copenhagen in late 2009, after which this issue was dropped from the final agenda of the conference as one which could devastate the negotiating process. The final document of the conference, the Copenhagen Accord, contains references neither to border adjustment nor to any trade-related measures which might be used in support of climate policy.³¹⁹ Also, at

³¹⁶Lamy P 'Lamy sees room for climate change border measures under WTO rules' *Inside US Trade* July 3 2009.

³¹⁷Holzer K (2010) 30.

³¹⁸Holzer K (2010) 30.

³¹⁹Holzer K (2010) 30.

the recently concluded Cancun Conference, held in December 2010, the issue of border adjustment was not on the agenda.³²⁰

Furthermore, it is possible for parties to the UNFCCC to negotiate an agreement on the non use or restricted use of BCAs. Such an agreement may be a provision included in the post-Kyoto climate agreement or a separately signed agreement. At a meeting of the Ad-hoc Working Group on Long Term Co-operative Action (AWG-LCA) of the UNFCCC in Bonn, India proposed the inclusion of the following paragraph in the negotiating text of a post-Kyoto agreement for the Copenhagen Conference in 2009:

Developed country parties shall not resort to any form of unilateral measures, including countervailing border measures, against goods and services imported from developing countries on grounds of protection and stabilization of climate. Such unilateral measures would violate the principles and provisions of the Convention, including, in particular, those related to the principle of common but differentiated responsibilities (Article 3, paragraph 1); trade and climate change (Article 3 paragraph 5); and the relationship between mitigation actions of developing countries and provision of financial resources and technology by developed country parties (Article 4, paragraphs 3 and 7).³²¹

4.3.1 A plural approach within the UNFCCC

It has been suggested that the way forward in addressing trade-related climate policy should be through separate agreements on some, but not all, of the issues of climate change among some, but not all, of the countries of the world. It is argued that adopting partial agreements on key aspects of climate change is a more realistic and strategic approach towards an ultimate global climate treaty.³²² In other words, given the urgency of climate change, negotiations between some countries should move forward, even if we cannot muster the needed consensus for all countries to proceed with negotiations. Arguing in support of these ideas, James Bacchus, the former chairman of the AB of the WTO, refers to the gradual historical evolution of the GATT, which started with just 23 original contracting parties in 1948, into today's WTO, with its 153 member countries and other

³²⁰ <http://cancun.unfccc.int/cancun-agreements/significance-of-the-key-agreements-reached-at-cancun/#c45> (accessed 15 April 2011).

³²¹ http://www.southcentre.org/index.php?option=com_content&task=view&id=1083&Itemid=279 (accessed 15 April 2011).

³²² Bacchus J (2010) 19.

custom territories, and suggests that GATT might in many respects be a worthy model for the emerging international legal architecture for climate change.³²³

Under the Copenhagen Accord, a plural approach seems to be contemplated. The language contained in the three page non-binding document establishes the basis for addressing important climate-related issues, such as, deforestation, mitigation funding, and technology transfer, through separate mechanisms among ‘coalitions of the willing’. These could function side-by-side with an emissions agreement, and together with a more focused and more limited United Nation (UN) process, in a plural approach towards attaining a shared global end.³²⁴

However, a plural approach might not be efficient for the issue of BCA measures. As with a plurilateral agreement, discussed above, there are challenges with the limited legitimacy of such a deal due to its limited membership and with the enforcement mechanism, especially when such a plurilateral agreement is negotiated outside the WTO. Thus, inclusion of provisions on BCAs in RTAs concluded between WTO members looks more feasible.

4.3.2 Joint UNFCCC and WTO solution

It has also been proposed that negotiations can be carried out based on a joint working group consisting of the UNFCCC and the WTO. The establishment of a working group, specifically one focusing on greater coherence between trade, climate change and development policy, will help maximise synergies, while minimising the potential for conflict.³²⁵ Indeed, there are ways in which the WTO can help to combat climate change.³²⁶ To date, most of all the all-too-little attention paid to the connection between trade and climate change has focused on how trade rules constrain national actions that would restrict international trade in products that have excessive carbon emissions in their production.³²⁷

³²³ Bacchus J (2010) 19.

³²⁴ Bacchus J (2010) 19.

³²⁵ Assunção L& Zhang ZX ‘Domestic Climate Change Policies and the WTO’ Discussion paper (2002) 21 available at http://www.unctad.org/en/docs/osgdp164_en.pdf (accessed 16 April 2011).

³²⁶ Holzer K (2010)31-2.

³²⁷ Bacchus J (2010) 7.

This working group would focus on discussions about the technical aspects and trade implications of specific measures and flexibility mechanisms envisioned in any international agreement on climate change negotiated. This would bring the consideration of specific climate policies and their resulting trade effects to a multilateral level and, at the same time, ensure their close consistency with the WTO rules, thus maximising the WTO's contribution to sustainable development.³²⁸

However, the current situation in the WTO is that the UNFCCC secretariat has been granted observer status in the WTO Committee on Trade and Environment and is being invited to its negotiating sessions. Furthermore, WTO secretariat officials attend intergovernmental climate sessions.³²⁹ Although it has been argued that now is not the appropriate time to bring the issue of climate policy trade-related measures to the WTO due to the current climate at the Doha Round, addressing this issue through negotiation will minimise the likelihood of politically controversial litigation.³³⁰ Hence, it seems reasonable to have parallel negotiations on the use of trade measures for climate policy purposes in the UNFCCC and the WTO.³³¹ Thus, a parallel negotiation in this context will assist the UNFCCC and WTO as they both work together to meet obligations and ensure that trade and environmental policies are mutually supportive.

On a contrary note, it has been argued that until a new international agreement on climate change framework comes into existence, and/or until the extent of unilateral climate-change related trade measures becomes clearer, it would be unwise for WTO members to open parallel negotiations on the climate change trade issue. In other words, WTO members are best advised to focus their negotiating efforts on concluding the Doha Round,³³² which is also important in the context of climate change.³³³

³²⁸ Assunção L & Zhang ZX (2002) 21.

³²⁹ Charnovitz S 'Trade and Climate: Potential Conflicts and Synergies' Working draft (2003) available at http://www.pewclimate.org/docUploads/Beyond_Kyoto_Trade.pdf (accessed 15 February 2011).

³³⁰ Bacchus J (2010) 7.

³³¹ Holzer K (2010) 32.

³³² The Doha Development Agenda (DDA) is the current trade trade-negotiation round of the WTO which commenced in 2001. Its objective is to lower trade barriers around the world, which will help facilitate the increase of global trade. Talks have stalled over a divide on major issues, in 2008 disagreement centered on developing countries' ability to respond to surges in agricultural imports. Now it appears that the bone of contention is the aim of proposed cuts in tariffs on manufactured goods. American sees the Doha talks as its

4.3.3 Conclusion

This chapter has identified the various institutional solutions available under the WTO and the UNFCCC to address the likely violation of WTO rules by the implementation of climate policy trade-related measures, such as BCAs. These solutions include: the dispute settlement approach, plurilateral and bilateral negotiations, and even amending the WTO legal text. Nevertheless, each of them lacks either feasibility or effectiveness. Most of them will likely lack the political will necessary for their adoption to reach consensus or the required vote from WTO members. The plurilateral solution, even if adopted, would lack effectiveness, as it could be easily surmounted by members who are not parties to it.

However, of all the approaches discussed above to address the problem of likely violation of WTO rules by the implementation of BCAs, the RTAs approach seems most feasible. In other words, it might be possible to include provisions on BCAs, including mutual recognition of climate policy actions refraining from using BCAs, in bilateral, regional or economic agreements. As mentioned above, the experience of the WTO shows that many sensitive trade-related issues were first negotiated at the regional level before being brought to multilateral negotiations. Provisions on BCA measures would just be part of a much broader economic agreement, which could include trade, investment, government procurement and other issues.

Therefore, even if such provision went contrary to the interests of one of the parties to the agreement, there would always be something which could be given by the other parties in compensation for this, especially if one of the parties is a developed country who can exercise its political and economic power or can offer concessions in other areas. This chapter also noted that the inclusion of provisions on BCAs would largely depend on the objectives, nature and scope of the agreements, and that this is based on the fact that some

final opportunity to get fast-growing economies like China and India to slash their duties on imports of such goods, which have been reduced in previous rounds but remain much higher than those in the rich world.

³³³ 'ICTSD–IPC Platform on Climate Change, Agriculture and Trade: Considerations for Policymakers' Working paper (2009) 7 available at http://www.agritrade.org/documents/IPC_PlatformForWeb_final.pdf (accessed 18 April 2011).

RTAs aim at establishing free-trade areas, while others seek to establish partnerships or regional integration.



CHAPTER FIVE

Conclusions and recommendations

5.1 Conclusions

Climate change is a stark reality facing human existence. The impact of climate change is manifold and global in nature. The world's leading scientific authority in the field, the Intergovernmental Panel on Climate Change (IPCC), presents strong and robust evidence that global temperatures are increasing, mainly due to human influences. Developing and least developed countries, and particularly the poorest and marginalised populations within these countries, will generally be the most adversely affected by the impacts of future climate change and will be the most vulnerable to effects, because they are less able to adapt than developed countries and their populations.

In Chapter Two, this mini-thesis noted that climate change will significantly affect the agricultural sector in most African countries, presenting substantial development and trade challenges. The agricultural sector is considered to be one of the sectors most vulnerable to climate change, and also represents a key sector for international trade. It is projected that in many African countries and regions agricultural production, as well as access to food, will be severely compromised by climate variability and change. Not only will climate change threaten the livelihood of farmers, its impact will obviously affect the exporting capacity of most African countries.³³⁴

Chapter Two of this mini-thesis also noted how climate change is likely to adversely affect a number of other sectors, particularly the tourism, fisheries and energy sectors. The tourism sector may be particularly vulnerable to climate change, for example through frequent flooding, drought and land degradation, all of which might lead potential tourists to perceive Africa as less attractive and consequently to seek new locations elsewhere. Climatic conditions such as air temperature and precipitation will also affect the fishery

³³⁴ This is premised on the fact that most African countries have comparative advantage in the agricultural sector.

sector, which, as noted in Chapter Two, is a key sector in a number of African countries and regions. Climate change will also affect the energy sector, primarily through losses or changes in hydropower.

In light of the global challenge of future climate change, countries have realised the need for a global answer to address such impacts. This is manifest in the various multilateral agreements negotiated by countries thus far. These multilateral efforts include: the United Nations Framework Convention on Climate Change (UNFCCC), the Kyoto Protocol, the Copenhagen Accord and the Cancun Agreements. This mini-thesis noted in Chapter Two that the UNFCCC was the first global effort to address climate change and that its main objective was for the stabilisation of greenhouse gas (GHG) concentrations in the atmosphere at a level that would prevent anthropogenic interference (i.e. interference resulting from human activity) with the climate system. The UNFCCC also reflects the principle of 'common but differentiated responsibilities', which recognises that even though all countries have the responsibility to address climate change, they have not all contributed to the same extent to causing the problem, nor are they all equally equipped to address it.

The Kyoto Protocol came about as a result of the non-binding commitments under the UNFCCC. The protocol requires industrialised countries to meet agreed levels of emission reductions over an initial commitment period that runs from 2008–2012. This mini-thesis further noted that the purpose of the Copenhagen Accord was to map out a path beyond the Kyoto Protocol, but that the final outcome of the Copenhagen Accord, a three page non-binding agreement, did not meet this goal. The recent Cancun Agreements came about as a result of further efforts to reach a post-2012 agreement on climate change. The Cancun Conference was a huge success in that delegates agreed to aspects of a global framework to help developing countries curb their carbon output and cope with the effects of climate change, but they postponed the question of precisely how industrialised and major economies will share the task of making deeper GHG emissions cuts.

Furthermore, this mini-thesis noted that there is a link between climate change and international trade. This is mainly through three effects: scale, composition and technique effects. An increase in the extent of trade and trade liberalisation would lead to an increase

in scale production. This could, in turn, lead to an increase in the extent of GHG emissions. This is referred to as the scale effect. Trade liberalisation also tends to change the mix of a country's production in terms of the commodities in which it has a comparative advantage. Depending on whether or not these commodities are energy-intensive, there is a change in the pattern of that country's GHGs. This term is referred to as the composition effect. Related to this concept is the technique effect. It is argued that trade liberalisation can also lead to more environmentally-friendly techniques of production being used. This can happen in two ways. Trade liberalisation might make available environmentally-friendly goods, services and technology, either through technology transfer or through affordability as a result of falling prices. Alternatively, increased incomes which might occur because of trade liberalisation might lead to an increased demand for cleaner technology, which would spur innovation and research. Trade and climate change linkages can also be viewed from other perspectives, including: the underlining principle establishing the regulatory bodies, legal perspectives and, finally, the likely impact of climate change on international trade.

In an effort to achieve their commitments under the Kyoto Protocol developed countries have adopted unilateral trade-related measures, in view of the fact that the Kyoto Protocol does not prescribe measures for stabilising and reducing GHGs. One of such measure is a carbon tax which is accompanied by a border tax adjustment (BTA) and which is often referred to as border carbon adjustment (BCA) in the climate change context. A carbon tax is defined as a tax levied against products that emit carbon during the production process, while a border carbon adjustment measure is the application of a charge or tax on a carbon-intensive product that is being imported into the country where a carbon tax is already levied against a similar domestically produced product and/or its inputs. These types of measures are viewed from the WTO perspective as special measures, because they are imposed not on products directly, but on process and production methods (PPMs). The PPMs nature of BCAs makes their legality disputable, and the main issues here are the likeness of different PPMs products and the product-process distinction. These issues raise a number of legal questions. For instance, can taxes levied on production methods qualify as indirect taxes and thus be adjusted? Or, can two PPMs-non-identical products be considered not like? In other words, is it possible to treat products differently depending on the amount of GHGs emitted during their production?

This mini-thesis noted in Chapter Three that while the GATT expressly provides that indirect taxes can be adjusted at the border, it is really not clear whether BTAs on carbon emissions costs are permitted under the current rules on BTA considering that this tax is levied not on products but on the production methods. However, even if BTAs on carbon emissions are not permitted by the GATT rules, they could be justified under Article XX of the GATT. Further, there is every likelihood that if BCA measures are implemented they will most likely violate GATT Articles I and III. These Articles place some likely constraints on the implementation of BCAs. These constraints are not over limiting and can also be justified under the provision of Article XX. For instance, if any of the proposed legislation on BCAs excludes from its scope imports from countries that have emission cuts in place. In that case an 'advantage' will be granted to such countries above other countries that don't have emissions cuts in place and therefore will be a violation of Article I of the GATT and, BCAs measures applied to the imported products 'in excess of those applied to the domestic like products' will be inconsistent with GATT Article III.

This mini-thesis further noted that two exceptions are of particular relevance to a country that intends to justify a measure under Article XX: paragraph (b) and paragraph (g). According to these two paragraphs, WTO members may adopt policy measures that are inconsistent with GATT disciplines, but necessary to protect human, animal or plant life or health as provided in paragraph (b), or relating to the conservation of exhaustible natural resources as provided in paragraph (g). Justifying a BCA measure under paragraph (b) will be very difficult considering the requirement of 'necessity'. Thus, a BCA measure will most likely be justified under paragraph (g), which requires a less stringent requirement, namely 'relating to'. Further, this mini-thesis noted in Chapter Three that the main challenge under Article XX will be the provision of the chapeau, which requires that parties relying on the justification of Article XX must take into account conditions in other countries. In other words, it requires essentially that the measure should be flexible enough to treat more favourably imports from countries which had taken emission reduction efforts in any form, and to differentiate in treatment depending on a country's level of economic development. If not, the measure could be found to amount to unjustifiable discrimination between countries where the same conditions prevail. It also requires that a measure should take

into consideration the rights and obligations of an exporting country under an international climate agreement.

Finally, this mini-thesis noted that justification of violations of GATT rules under Article XX can only be achieved through litigation and this implies that any violation in the GATT rules will have to be brought before the WTO adjudicative bodies each time anew. In a quest to provide lasting solutions to the problem of violation of WTO rules by the implementation of BCA measures, this mini-thesis examined in Chapter Four various institutional solutions within the WTO and the UNFCCC legal frameworks. These institutional solutions might be achieved through a dispute settlement approach, through plurilateral and bilateral negotiations or even by amending the WTO legal text. Nevertheless, each of them lacks either feasibility or effectiveness. Most of them will likely lack the political will necessary for their adoption to reach consensus or the required vote from WTO members.

5.2 Recommendations

As indicated in Chapter Three of this mini-thesis, there is a high probability that the implementation of BCA measures will most likely violate GATT Articles I and III. Although the GATT rules are unclear as to whether or not carbon emissions can be adjusted at the border, but in order to address the likely violations of GATT rules that may arise as a result of the implementation of BCAs. This mini-thesis recommends the following notwithstanding these uncertainties.

First, any violation of the GATT rules that may arise from the implementation of BCA measures can be justified under the environmental exceptions of GATT Article XX (g). This line of defense is needed in case (1) the WTO rules would not permit BTA for a process-based tax or charge, or (2) the WTO does permit BTA but the adjustment is found to discriminate among imports as against products of the implementing country or between different sources of imports. For example, if the US did not impose BCAs on Europe, with their own emission cuts in place, or excluded some African developing countries. In such cases, a GATT violation would arise and could be justified under the exceptions of GATT

Article XX (g). Furthermore, for BCA measures to properly fit into the requirement of the chapeau if it violates any GATT rules. This mini-thesis presumes that it would be more reasonable to apply import carbon tariffs, rather than BCA measures. This is because of the intrinsic competition-related motives of BCAs, and the traditionally symmetric application of border adjustment to imports and exports (which in the case of export rebates runs contrary to climate policy objectives).

Secondly, in light of the fact that justification of a measure under Article XX can only be achieved through litigation and this will entail bringing different disputes before WTO adjudicative bodies each time anew, this mini-thesis recommends that a long-lasting solution to address the likely violation of GATT rules by the implementation of BCAs can be achieved through the use of RTAs. The RTAs approach seems most feasible. In other words, it might be possible to include provisions on BCAs, including mutual recognition of climate policy actions refraining from using BCA measures, in bilateral, regional or economic agreements. The experience of the WTO shows that many sensitive trade-related issues were first negotiated at the regional level before being brought to multilateral negotiations. Thus, the inclusion of BCA measures in RTA would just be part of a much broader economic agreement, which could include trade, investment, government procurement and other issues. Therefore, even if such provision goes contrary to the interests of one of the parties to the agreement, there would always be something which would be given by the other parties in compensation for this, especially if one of the parties is a developed country which can exercise its political and economic power or can offer concessions in other areas.

Bibliography

Books

Birnie P Boyle A & Redgwell C *International Law and the Environment* 3 ed (2009) United States: Oxford University Press

Hufbauer GC Charnovitz S & Kim J *Global Warming and the World Trading System* (2009) Washington DC: Peterson Institute for International Economics

Potts J *The Legality of PPMs under the GATT: Challenges and Opportunities for Sustainable Trade Policy* (2008) Canada: International Institute for Sustainable Development also available at http://www.iisd.org/pdf/2007/ppms_gatt.pdf (accessed 14 March 2011)

Rechtschaffen C, Gauna E & O' Neil AC *Environmental Justice Law, Policy & Regulation* 2ed (2009) Durham, North Carolina: Carolina Academic Press

Ruhl JB, Nagle CJ & Salzman J 'et al' *The Practice and Policy of Environmental Law* 2ed (2010) New York: Foundation Press

Articles in Journals and Chapters in Books

Aldy JE Stavins RN 'Introduction- Post-Kyoto International Climate Policy: Implementing Architectures for Agreement' in Aldy JE Stavins RN (eds) *Post-Kyoto International Climate Policy: Implementing Architectures for Agreement* (2010) New York: Cambridge Press

Biacuana G 'Climate Change: Case Study of Mozambique' in Drapers P & Mbirimi I (eds) *Climate Change & Trade: The Challenges for Southern Africa* (2010) Pretoria: South African Institute of International Affairs (SAIIA)

Copeland BR & Taylor MS 'Trade, Growth and the Environment' (2004) 42 *Journal of Economic Literature* 7-71

Engelbrecht F 'The Scientific Basis for Climate Change over Southern Africa' in Drapers P & Mbirimi I (eds) *Climate Change & Trade: The Challenges for Southern Africa* (2010) Pretoria: South African Institute of International Affairs (SAIIA)

Feris L 'Multilateral Trade Policies and Measures in Post – Kyoto Structures' in Drapers P & Mbirimi I (eds) *Climate Change & Trade : The Challenges for Southern Africa* (2010) Pretoria: South African Institute of International Affairs (SAIIA)

Feris L 'Trade and the Environment' in Strydom HA and King ND (eds) *Environmental Management in South Africa* 2ed (2009) Cape Town: Juta

Kamal Gueye M Hepburn J Sugathan M 'et al' 'Climate Adaptation and Trade: Key Challenges and Options for Agriculture in Small Developing Countries' in *Climate and Trade Policies in a Post-2012 World*, UNEP (2009) available at <http://www.unep.org/climatechange/LinkClick.aspx?fileticket=zb4Wio0kiAI%3D&tabid=389&language=en-US> (accessed 18 February 2011)

Mbirimi I 'How Might Southern Africa Begin to Respond to Climate Change? A Synthesis of Key Findings' in Drapers P & Mbirimi I (eds) *Climate Change & Trade: the Challenges for Southern Africa* (2010) Pretoria: South African Institute of International Affairs (SAIIA)

Mclsaac C 'Opening a Gate to Reduce Global Emissions: Getting over and into WTO' (2010) *Journal of World Trade* 1054-1081

Melendez-Ortiz R 'Anticipating Pressing Issues in Integration: The Trade, Climate and Sustainable Development Nexus' (2010) 14 *Journal of the institute for the integration of Latin America and the Caribbean* available at <http://www.iadb.org/intal/ICom/30/eng/pdf/i-INTAL-I&T-30-2010-Melendez-Biswas-Jeg-ou.pdf21-32> (accessed 13 November 2010)

Nair S 'Unilateral carbon measures: effectiveness and alternatives' in Mikic M (ed) *Rising Non-Tariff Protection and Crisis Recovery* (2010) Bangkok: United Nation Economic and Social Commission for Asia and the Pacific (Studies in Trade and Investment) also available at http://www.unescap.org/tid/publication/tipub2587_chap7.pdf (accessed 15 March 2011)

Nielsen L 'Border Carbon Adjustments, The UNFCCC and WTO Rules' (2009) *America. Society' of International Law Proceedings* 369-372

Reinaud J 'Would Unilateral Border Adjustment Measures be Effective in Preventing Carbon Leakage' in *Climate and Trade Policies in a Post 2012 World* ,UNEP(2009)available at <http://www.unep.org/climatechange/LinkClick.aspx?fileticket=zb4Wio0kiAI%3D&tabid=389&language=en-US> (accessed 18 February 2011)

Veel P 'Carbon Tariffs and the WTO: An Evaluation of Feasible Policies' 12. *Journal of International Economic Law* 749-800

Weirs J 'Multilateral Negotiations and Unilateral Discrimination from a World Trade Organisation Legal Perspective' in *Climate and Trade Policies in a Post – 2012 World*, UNEP (2009) available at

<http://www.unep.org/climatechange/LinkClick.aspx?fileticket=zb4Wio0kiAI%3D&tabid=389&language=en-US> (accessed 18 February 2011)

Weischer L Simmons B Asselt Hv & Zelli F 'Introduction - Climate and Trade Policies in a Post-2012 World' in *Climate and Trade Policies in a Post 2012 World*, UNEP (2009) available at <http://www.unep.org/climatechange/LinkClick.aspx?fileticket=zb4Wio0kiAI%3D&tabid=389&language=en-US> (accessed 18 February 2011)

Werksman J 'How Should a Post-2012 Climate Agreement Address Trade-Related Environmental Measure?' in *Climate and Trade Policies in a Post-2012 World*, UNEP (2009) available at <http://www.unep.org/climatechange/LinkClick.aspx?fileticket=zb4Wio0kiAI%3D&tabid=389&language=en-US> (accessed 18 February 2011)

Zhang ZX 'Encouraging Developing Country Involvement in a Post 2012 Climate Change Regime: Carrots, Sticks or Both?' in *Climate Change and Trade Policies in a Post-2012 World*, UNEP, (2009) available at <http://www.unep.org/climatechange/LinkClick.aspx?fileticket=zb4Wio0kiAI%3D&tabid=389&language=en-US> (accessed 18 February 2011)

International Agreements



The United Nations Framework Convention on Climate Change (1992)

The Marrakesh Agreement (1994)

General Agreement on Tariffs and Trade (GATT 1994)

The Kyoto Protocol (1997)

The Copenhagen Accord (2009)

The Cancun Agreement (2010)

Reports

IPCC 'Intergovernmental Panel on Climate Change' Fourth Assessment Report of the Intergovernmental Panel on Climate Change (2007) available at http://www.ipcc.ch/pdf/assessment-report/ar4/syr/ar4_syr.pdf (accessed 18 December 2010)

Kommerskollegium Report 'Climate measures and trade: Legal and economic aspects of border carbon adjustment' A report by Sweden National Board of Trade (2009) available at

[http://www.kommers.se/upload/Analysarkiv/In%20English/Report%20Climate Measures and Trade.pdf](http://www.kommers.se/upload/Analysarkiv/In%20English/Report%20Climate%20Measures%20and%20Trade.pdf) (accessed 10 February 2011)

Kommerskollegium Report 'Practical Aspects of Border Carbon Adjustment' A Report by Sweden National Board of Trade (2010) available at <http://www.kommers.se/upload/Analysarkiv/Publikationer/rapport%20Practical%20Aspect%20of%20Border%20Carbon%20Adjustment%20Measures.pdf> (accessed 10 February 2011)

Stern Review 'The Economics of Climate Change' (2006) available at <http://siteresources.worldbank.org/INTINDONESIA/Resources/226271-1170911056314/3428109-1174614780539/SternReviewEng.pdf> (accessed 18 November 2010)

UN Report of Conference of Parties on its 13th Session held in Bali (2007) available at <http://unfccc.int/resource/docs/2007/cop13/eng/06.pdf> (accessed 20 March 2011)

WTO Working Party Report 'Border Tax Adjustment' A Report of the World Trade Organisation on Border Tax Adjustments, L/3463. (1970) available at <http://www.worldtradelaw.net/reports/gattpanels/bordertax.pdf> (accessed 13 January 2011)

WTO, Working Party Report on 'Domestic Regulation' 8 December (2003) S/WPDR/W/27 available at <http://ictsd.org/downloads/2008/04/nctest.pdf> (accessed 15 March 2011)

WTO-UNEP Report 'Trade and Climate Change' A Report by the United Nations Environment Program and the World Trade Organisation (2009) available at [http://www.wto.org/english/res_e/booksp_e/trade climate change e.pdf](http://www.wto.org/english/res_e/booksp_e/trade%20climate%20change_e.pdf) (accessed 15 November 2010)

WWF-UK Report 'Climate Change and its Impact on Tourism' A report prepared for World Wide Fund for Nature (1999) available at http://www.wwf.org.uk/filelibrary/pdf/tourism_and_cc_full.pdf (accessed 16 March 2011)

WTO Panel and Appellate Decisions

Appellate Body Report *Brazil-Measures Affecting Imports of Retreaded Tyres*, WT/DS332/AB/R, adopted 17 December 2007, DSR 2007: IV, 1527

Appellate Body Report, *European Communities – Regimes for the importation, Sale and Distribution of Bananas*, WT/DS27/AB/R, adopted 25 September 1997, DSR 1997: II, 591

Appellate Body Report, *European Communities –Measures Affecting Asbestos and Asbestos –Containing Products*, WT/DS135 /AB/R, adopted 5 April 2001, DSR 2001: VII, 3243

Appellate Body Report, *European Communities-Conditions for the Granting of Tariff Preferences to Developing Countries*, WT/DS246/AB/R, adopted 20 April, 2004 DSR: III, 925

Appellate Body Report, *Japan-Taxes on Alcoholic Beverages*, WT/DS8/AB/R, WT/DS10/AB/R, WT/DS11/AB/R, adopted 1 November 1996, DSR 1996: I, 97

Appellate Body Report, *Korea Measures Affecting Imports of fresh, Chilled and Frozen Beef*, WT /DS161/R, WT/DS169/R, adopted 10 January 2001, DSR 2001: I, 5

Appellate Body Report, *United States – Import Prohibition of Certain Shrimp and Shrimp Products –Recourse to Article 21.5 of the DSU by Malaysia*, WT/ DS58/RW, adopted 21 November 2001, DSR 2001:XIII,6481

Appellate Body Report, *United States- Standards for Reformulated and Conventional Gasoline*, WT/DS2/R, p, 22 adopted 20 May 1996, DSR 1996: I, 3

Appellate Body Report: *United States – Import Prohibition of Certain Shrimp and Shrimp products*, WT/DS58/AB/R, adopted 6 November 1998, DSR 1998: VII, 2755

Appellate Body Report: *United States-Measures Relating to Shrimp from Thailand/ United States – Customs Bond Directive for Merchandise Subject to Anti dumping/Countervailing Duties* WT/DS345/AB/R, WT/DS345/AB/R adopted 1 August 2008: VII,2385/DSR 2008:VIII,2773

Appellate Body Report: *EC Measures Concerning Meat and Meat Products (Hormones)*, WT/DS26/AB/R, WT/DS48/AB/R, adopted 13 February 1998, DSR 1998: I, 135

GATT Panel Report: *Thailand – Restrictions on Importation of and Internal Taxes on Cigarettes*. (7 November 1990) DS10/R-37S/200

Panel Report Tuna-Dolphin I: *United States - Restrictions on Imports of Tuna*, DS21/R, 3 September 1991, unadopted, BISD 39S/155

Panel Report *US-Superfund, United States-Taxes on Petroleum and Certain Imported Substances*, adopted 17 June 1987, L-6175

Panel Report, *United States – Standards for Reformulated and Conventional Gasoline*, WT/DS2/AB/R, adopted 20 May 1996, as modified by Appellate Body Report WT/DS2/AB/R, DSR 1996: I, 29

Tuna- Dolphin I: *United States – Restrictions on Imports of Tuna*, DS21/R, 3 September 1991, unadopted, BISD 39S/155

Working Papers, Briefing Papers and Working Drafts

Abbas M 'Trade Policy and Climate Change: Options for a European Border Adjustment Measure' Working Paper (2008) available at http://www.fondapol.org/wp-content/uploads/pdf/documents/DT_Environnement_et_fiscalite_Lenjeu_de_la_taxe_carbone_ENG.pdf (accessed 11 March 2011)

Assunção L Zhang ZX 'Domestic Climate Change Policies and the WTO' Discussion Paper (2002) 21 available at http://www.unctad.org/en/docs/osgdp164_en.pdf (accessed 16 April 2011)

Brandi C 'International Trade and Climate Change: Border Adjustment Measures and Developing Countries' Briefing paper (2010) available at [http://www.die-gdi.de/CMS-Homepage/openwebcms3.nsf/\(ynDK_contentByKey\)/ANES-873HC2/\\$FILE/BP%2011.2010.pdf](http://www.die-gdi.de/CMS-Homepage/openwebcms3.nsf/(ynDK_contentByKey)/ANES-873HC2/$FILE/BP%2011.2010.pdf) (accessed 18 December 2010)

Charnovitz S 'Trade and Climate: Potential Conflicts and Synergies' Working Draft (2003) available at http://www.pewclimate.org/docUploads/Beyond_Kyoto_Trade.pdf (accessed 15 February 2011)

Collier P Conway G & Venables T 'Climate Change and Africa' (2008) available at http://users.ox.ac.uk/econpo/research/pdfsClimateChangeand_Africa.pdf (accessed 16 February 2011)

Cosbey A 'Trade and Climate Change Linkages' scoping paper (2007) available at http://www.iisd.org/pdf/2007/trade_climate_linkages.pdf (accessed 15 January 2011)

Griswold DT 'Trade, Labor, and the Environment: How Blue and Green Sanctions Threaten High Standards' Cato Institute Trade Policy Analysis (2001) available at <http://www.cato.org/pubs/tpa/tpa-015b.pdf> (accessed 14 March 2011)

Holzer K Trade and Climate Policy Interaction: Dealing with WTO Law Inconsistencies of Carbon-related Border Adjustment Measures Research Paper (2010) available at

http://stockholm.sgir.eu/uploads/Holzer_Working%20paper_23sept.pdf (accessed 9 January 2011)

Hufbauer GC Kim J 'The WTO and Climate Change: Challenges and Options' Working Paper (2009) available at <http://www.iie.com/publications/wp/wp09-9.pdf> (accessed 10 April 2011)

ICTSD-IPC Platform on Climate Change, Agriculture and Trade: Considerations for Policymakers Working paper (2009) 7 available at http://www.agritrade.org/documents/IPC_PlatformForWeb_final.pdf (accessed 18 April 2011)

Kang S 'Carbon Border Tax Adjustment from WTO Point of view' Working paper (2010) available at http://papers.ssrn.com/sol3/papers.cfm?abstract_id=1628718 (accessed 13 December 2010)

Pauwelyn J 'US Federal Climate Policy and Competitiveness Concerns: The Limits and Options of International Trade Law' Working paper (2007) 17 available at <http://graduateinstitute.ch/webdav/site/ctei/shared/CTEI/Pauwelyn/internationaltradelaw.pdf> (accessed 15 December 2010)

Ringler C Zhu T Cai X '*et al*' 'Climate Change Impacts on Food Security in Sub- Sahara Africa' Discussion paper (2010) available at <http://www.ifpri.org/sites/default/files/publications/ifpridp01042.pdf> (accessed 15 April 2011)

Winchester N Paltsev S Reilly J 'Will Border Carbon Adjustment Work' (2010) available at http://globalchange.mit.edu/files/document/MITJPSPGC_Rpt184.pdf (accessed 15 February 2011)

Speech and Addresses

Bacchus J 'Questions in Search of Answers: Trade, Climate, and the Rule of Law' (2010) 8 Keynote Address available at http://graduateinstitute.ch/webdav/site/ctei/shared/CTEI/events/TAIT%202/Keynote_Bacchus_Final_Plus_Discussions.pdf (accessed 16 February 2011)

Pauwelyn J 'Testimony Before the Subcommittee on Trade of the House Committee on Ways and Means' (2009) available at <http://democrats.waysandmeans.house.gov/media/pdf/111/pauw.pdf> (accessed 18 March 2011)

United Nations Secretary-General Ban Ki-Moon's address to the Intergovernmental Panel on Climate Change (IPCC) upon the release of the Fourth Assessment Synthesis Report (2007)

Newspaper Publication

Lamy P 'Lamy Sees Room for Climate Change Border Measures under WTO rules' *Inside US Trade* July 2009

Websites

<http://www.navhindtimes.in/opinion/failure-cancun-climate-summit>

<http://unfccc.int/meetings/items/4381.php>

<http://www.telegraph.co.uk/earth/environment/climatechange/8197785/Cancun-climate-agreement-Analysis-of-the-text.html>

<http://unfccc.int/meetings/items/4381.php>

<http://www.navhindtimes.in/opinion/failure-cancun-climate-summit>

<http://ictsd.org/i/news/biores/98259/>

http://www.southcentre.org/index.php?option=com_content&task=view&id=1083&Itemid=279

