Climate Change Architecture Series

Climate Change and Sustainable Energy Measures in Regional Trade Agreements (RTAs)

An Overview

By Markus W. Gehring, Marie-Claire Cordonier Segger, Fabiano de Andrade Correa, Patrick Reynaud, Alexandra Harrington and Rodrigo Mella

ICTSD Global Platform on Climate Change, Trade and Sustainable Energy

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ICTSD welcomes feedback on this document. These can be forwarded to Ingrid Jegou, ijegou@ictsd.ch

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ABBREVIATIONS AND ACRONYMS

APEC	Asia-Pacific Economic Cooperation
ASEAN	Association of Southeast Asian Nations
CARICOM	Caribbean Community
CDM	Clean Development Mechanism
CEC	Commission for Environmental Cooperation
CITES	Convention on International Trade of Endangered Species
CTE	Committee on Trade and Environment
DFQF	Duty-free-quota-free
EGS	Environmental Goods and Services
ER	Environmental Review
EU	European Union
FTA	Free-trade Agreement
GATT	General Agreement on Tariffs and Trade
GHG	Greenhouse Gas
MERCOSUR	South-American Common Market (*Mercado Común del Sur*)
NAAEC	North American Agreement on Environmental Cooperation
NAFTA	North American Free Trade Agreement
NIA	National Interest Assessment
OECD	Organization of Economic Co-operation and Development
PTA	Preferential Trade Agreements
RTA	Regional Trade Agreement
SEA	Strategic Environmental Assessment
SETA	Sustainable Energy Trade Agreement
SIA	Sustainability Impact Assessment
TBT	Technical Barriers to Trade
TDCA	Trade, Development and Cooperation Agreement
UNCSD	United Nations Conference on Sustainable Development
UNFCCC	United Nations Framework Convention on Climate Change
WTO	World Trade Organization

FOREWORD

Climate change has for years been on the political agenda. In the eddy of the UNFCCC debacle in Copenhagen in 2009, where world leaders failed to meet expectations and deliver a solution, it however inevitably slipped to the backburner of international policy priorities. Recently, attempts to change this have been made by several international frontrunners. For example, the head of the International Monetary Fund, Christine Lagarde, recently called for action when stressing that "Unless we take action on climate change, future generations will be roasted, toasted, fried and grilled." Jim Yong Kim, president of the World Bank, went so far as to state that "global warming imperils all of the development gains we have made."

Also among those who need to take effective action to mitigate climate change, national governments, important changes in positions have been observed. In April 2013, the Least Developed Countries, a major negotiating bloc at the UNFCCC which has traditionally insisted that the primary responsibility for tackling climate change through carbon cuts lies with industrialised nations, stated that they agree to take on binding reduction commitments. While emissions form LDCs are negligible, this is nevertheless of major symbolic value, making it considerably more difficult for developed and emerging economies to avoid taking serious action while rather pointing to the other bloc to do more. Indeed, a month later, in May 2103, China indicated that it was considering a cap on carbon emissions starting in 2016. The US President Obama, who during his first term systematically avoided using the term climate change, has also come around to identifying concrete measures which he will undertake to address climate change.

These are encouraging signs indeed, the time for action is now, as underlined by a recent report from the International Energy Agency, which says that the world is currently not on track to meet the target of staying within a 2 degree target. Therefore, it is necessary to employ all policy measures and tools that are available to address carbon emissions. Among these tools, trade agreements present an interesting one. Where free and open trade allows for an optimal resource allocation, it should be pursued in the longer term. In the shorter term, expeditiously addressing specific obstacles to trade in climate-friendly goods and to renewable energy technologies, and providing for an enabling environment in the sector, is a concrete option which is increasingly within reach. Indeed, while progress to this end has staggered in the WTO under the Doha Development Round, countries are more and more making use of regional trade agreements, RTAs, to advance environment and climate objectives.

This paper, authored by a team of lawyers at the Centre for International Sustainable Development Law, with Cambridge Professor Markus Gehring as the lead author, offers an overview of a selection of recent RTAs. With specific examples based on recent treaty provisions, it analyses the most innovative attempts to form a new generation of RTAs to create different types of exemptions from trade rules that could otherwise restrict the adoption and implementation of domestic or international measures to address climate change; provide new mechanisms for cooperation on climate-change impacts and opportunities, including technology transfer; and enhance trade in climate-friendly goods and services, including use of trade and investment law to directly encourage the development of clean energy.

The findings of this paper can facilitate the identification of "low-hanging fruit" in upcoming multi- or plurilateral trade negotiations, for example under a "Sustainable Energy Trade Agreement", SETA. It can also serve as inspiration for policy-makers as they negotiate new RTAs.

We are positive that this timely analysis will prove to be useful over the next few years as countries work together in the current momentum on environmental goods and services, including renewable energy technologies. Notable in this context is the recent agreement of the APEC-economies on a list of environmental goods for trade liberalisation, as well as encouraging movements among a group of like-minded countries to build on this by turning it into a full, binding trade agreement.

As always, we welcome comments and input on our paper.

Ricardo Meléndez-Ortiz
Chief Executive, ICTSD

EXECUTIVE SUMMARY

This policy paper surveys the landscape of provisions related to climate change, including trade in sustainable energy technologies and services, in regional trade agreements (RTAs). It contributes to current analysis of the intersections between trade law and climate change, through a brief legal overview of climate and energy-related provisions in RTAs. It focuses on identifying potential 'good practice' examples that can inspire more comprehensive trade policy reform at multilateral or other levels, highlighting trade measures that, if implemented effectively, could lead to new opportunities for sustainable development of a low-carbon economy.

Carried out in partnership between the Centre for International Sustainable Development Law (CISDL) and the International Centre for Trade and Sustainable Development (ICTSD), with support from Canada's academic Social Sciences and the Humanities Research Council (SSHRC) and the Jean Monnet Research Chair in Sustainable Development Law at the University of Ottawa Faculty of Law, the paper examines, in a comparative manner, provisions that have been adopted in recent RTAs to provide flexibility to regulators concerned about climate change, to enhance cooperation on trade-related climate change, and to encourage 'climate-friendly' trade and investment flows. Through this survey, the paper analyses the progressive development of the climate change and trade treaty agendas, drawing lessons for a sustainable energy trade agreement (SETA) that might harness trade in the interest of sustainable development.

To briefly summarise, this paper first examines the relationship between trade and climate change, highlighting the current regulatory challenges and conflicts that may pose significant obstacles to collaborative efforts to address climate change. Then, the paper explains how the obligations of member parties under the United Nations Framework Convention on Climate Change (UNFCCC) and the World Trade Organization (WTO) reflect mutual goals of sustainable development. It notes that multilateral efforts to implement these commitments continue to be difficult to realise. To address the questions raised, the paper provides a survey and analysis of the RTA landscape in 2012, briefly examining the main drivers of RTA negotiation. It concludes that measures to identify climate-change impacts and other sustainability concerns are now embedded in the preparatory and negotiations processes of some countries, and these methods and their significance are noted. In particular, the paper argues that impact assessments are revealing key tensions between trade and climate change, not just in terms of the need to secure flexibility for regulators to reasonably address new climate threats and opportunities while avoiding disguised protectionism, but also to address the need for new cooperation to implement rather than undermine international and national climate-change objectives and the need to reduce subsidies and other incentives for trade and investment in obsolete goods and services, while enhancing trade and investment in lower-carbon technologies, goods and services that support sustainable development.

Further, the paper provides an overview of existing provisions in RTAs that address these tensions. With specific examples based on recent treaty provisions, it analyses the most innovative attempts of the parties to form a new generation of RTAs to:

(1) create different types of exemptions from trade rules that could otherwise restrict the adoption and implementation of domestic or international measures to address climate change;

(2) provide new mechanisms for cooperation on climate-change impacts and opportunities, including technology transfer; and

(3) enhance trade in climate-friendly goods and services, including use of trade and investment law to directly encourage the development of clean energy.

1. INTRODUCTION

1.1 Objective and Scope

This paper examines the actual and potential role of trade in sustainable energy technologies and services provisions in regional trade agreements (RTAs) addressing climate change. It fills a gap in the current analysis of the intersections between trade law and climate change, by providing a brief but comprehensive legal overview of the state of play of climate-related provisions in RTAs. It also analyses the current tensions between the progressive development of the climate change and trade treaty agendas. The broad purpose of this study is to identify both 'low-hanging fruit' for more comprehensive trade policy reform at the multilateral or plurilateral level and areas where further work is needed to implement new RTA measures to address climate change. Given that tariffs are already low in many countries and economic sectors, an examination of newer iterations of RTAs can help to identify provisions other than tariff reductions that can be included. For instance, the study reviews new mechanisms that have been included in recent RTAs to address non-trade barriers to effective transfer of clean energy technologies and other 'climate-friendly' trade and investment.

1.2 Methodology

This paper is based on a selection of findings from a broader legal research initiative led by legal scholars from the Law Faculty of McGill University and the Centre for International Sustainable Development Law (CISDL),[1] with support from Canada's Social Sciences and Humanities Research Commission (SSHRC)[2] and the European Commission's Jean Monnet Chair in Sustainable Development,[3] in which more than 500 regional trade and investment agreements were classified into a database of relevant treaty texts. From the database, taking into account counsel from expert advisors and the outcomes of searches of existing law and policy literature, 58 RTAs were selected in which countries agreed to commitments related to sustainable development. (See Annex). Not all of these RTAs, however, contained explicit innovations for sustainable development that merited further analysis. Further comparative scoping was conducted, using legal analytical methods, to identify the most substantive and explicit legal provisions related to climate change in the selected sampling of RTAs. The qualitative comparative legal analysis permitted the identification of a subset of 26 RTAs for more detailed examination of textual treaty provisions, which most explicitly address substantive issues related to climate change. The RTAs selected were adopted and promulgated between the UN Conference on Environment and Development in 1992, and before the UN Conference on Sustainable Development in 2012, a 20-year period that encompasses the founding of the World Trade Organization (WTO), the adoption of the North American Free Trade Agreement (NAFTA), the development of the European Union's (EU) new regional trade and economic partnership agreements under the Cotonou Agreement and the signature, entry into force and initial implementation of the UN Framework Convention on Climate Change (UNFCCC). Based on this comparative analysis, examples of innovative textual provisions from these treaties are provided where useful to illuminate the substantive legal points that are discussed throughout this paper. A table of the 59 RTAs surveyed and the 26 RTAs selected for more detailed analysis is provided in Annex 1.

1.3 Structure

The paper is introduced in Section 1, which explains the objective, scope, methodology and structure of the work. Then, in Section 2, the relationship between trade and climate change is briefly canvassed, highlighting the current regulatory challenges and conflicts that may pose significant obstacles to collaborative efforts to address climate change. It explains how the obligations of member parties under

the UNFCCC and the WTO reflect mutual goals of sustainable development, noting that efforts to implement these commitments continue to be difficult to realise.

Section 3 analyses changes in the RTAs landscape from 1992 to 2012, drawing from an agreed selection of RTAs that address sustainable development explicitly (See Annex 1). Measures to ensure the inclusion of climate change and other concerns are embedded into the preparatory and negotiations process in some countries, and these methods and their significance are noted. Section 4 then provides an overview of existing commitments in RTAs that set sustainable development as a purpose or principle of the RTA itself. Section 5 summarises how RTAs are evolving to include provisions that create exemptions from trade rules that would otherwise restrict the establishment and implementation of measures to address climate change by the parties to the RTAs, examining the nature of these provisions and their effects.

Sections 6, 7 and 8 then provide a deeper analysis of the more innovative cooperative provisions related specifically to addressing climate change and sustainable development of energy, considering both cooperative measures that directly address climate-change issues, as well as parties' agreements to enhance trade in climate-friendly goods and services and otherwise use investment law to directly encourage clean energy and other low-carbon development. Finally, Section 9 provides recommendations, identifying potential options for progress either within future RTAs or in a stand-alone sustainable energy trade agreement (SETA).

2. TRADE LAW FOR A LOW-CARBON ECONOMY: THE GLOBAL DEBATE

International and national economic laws guide global and local efforts to prevent climate change and hold the potential to encourage 'climate-friendly' trade and investment in energy, transportation, forestry, agriculture and other sectors. Relevant regimes include international treaties, such as the UNFCCC and the agreements establishing the WTO, as well as a series of regional and bilateral trade and investment agreements. Despite an increasingly complex international framework, no clear and definitive rules have been established to govern the overlapping relationship between trade and climate change and to ensure that trade and investment can foster rather than frustrate the development of a low-carbon 'green' economy. Trade and climate-change linkages have appeared squarely on the agendas of three global negotiations processes with sustainable development goals: the UNFCCC, the WTO and the 2012 'Rio+20' UN Conference on Sustainable Development, but all have been plagued by a continuing failure to make substantial progress.[4]

The more than 190 parties to the UNFCCC, in their national communications, have pledged to adopt new national strategies and laws, backed by new or tailored institutions, to address climate change.[5] Indeed, countries, such as Mexico, the Philippines and the United Kingdom (UK), have recently passed domestic legislation creating regulatory frameworks for the implementation of key UNFCCC commitments regarding the creation of carbon-trading markets in a concerted effort to mitigate their respective contributions to greenhouse gas (GHG) emissions and to establish effective adaptation strategies.[6] Many other countries are currently undertaking similar legislative and policy reform measures to more efficiently manage climate change in an economic framework.[7] Evolving international economic regimes can significantly impact the effectiveness of these efforts, either fostering or frustrating the sustainable development of a low-carbon economy in the future.

Thus far, multilateral efforts to liberalise trade and investment and to reduce global GHG emissions have proceeded largely along separate tracks.[8] On the one hand, trade liberalisation is being defined in the negotiations and the treaties establishing the WTO and their annexes together with over 3,000 regional and bilateral trade and investment treaties. Sustainable development, environmental and development considerations can be identified in various aspects of the WTO system. As has been well-documented, the Preamble of the WTO Agreement supports "the optimal use of the world's resources in accordance with the objective of sustainable development, seeking both to protect and preserve the environment and to enhance the means for doing so."[9] More specifically, Articles XX (b) and XX (g) of the General Agreement on Tariffs and Trade (GATT) 1994 provide an avenue to take environment, health and other public law and policy considerations into account in trade dispute resolution by creating exceptions to restrictions on international trade for reasons of natural resources conservation and the protection of health and human, animal and plant life.[10] It is possible that the WTO's commitment to sustainable development as an objective would be interpreted to include climate-change considerations, particularly with respect to the use of the world's atmosphere as a resource.[11] The WTO General Council's Committee on Trade and Environment (CTE) has sought to clarify the relationship between trade and the environment so as to promote sustainable development and coordinate regulatory approaches to its management.[12] While its mandate has clear implications for climate change, progress to date has been limited, even for environmental goods and services liberalisation under the 2001 Doha Development Agenda negotiations.[13]

The other arm of the multilateral approach towards GHG reduction and mitigation is shaped by the UNFCCC. The UNFCCC establishes the

main international framework for a multilateral approach to climate-change mitigation.[14] Article 3(5) of the UNFCCC requires parties to incorporate trade concerns into activities aimed at addressing climate change. The Kyoto Protocol, which entered into force in 2005 under the UNFCCC, sets binding commitments for developed country parties to reduce GHG outputs over a defined period.

Finally, the UNCSD – and most recently the Rio+20 meeting of the UNCSD – has affirmed that the promotion of sustainable development includes the advancement of the green economy, with strong governmental and civil-society impetus to incorporate the green economy into accepted economic models and practices at the domestic and international levels.[15] The UNCSD has also established the importance of energy policy as a tool for advancement of indigenous and poor communities as well as the advancement of sustainable development and its many constituencies as a whole.[16] This includes embracing the use of cleaner fossil fuels for energy generation as well as the use of new technologies.[17]

Though these systems of international policies and rules share common sustainable development objectives, the relationship between them is complex, as each focuses on particular facets of sustainable development. Further, the regimes "are likely to come into closer contact as climate policies lead to significant economic effects."[18] To date, both the WTO and the UNFCCC have been careful to steer clear of any definitive statements on how interrelationships should be dealt with, and the lack of a dedicated and neutral forum to deal with the development and management of a trade and climate-change regime has remained a significant obstacle to the progression of this agenda. While echoing earlier encouragements for mutually supportive relationships, Rio+20 also failed to provide a definitive outcome.

Nevertheless, as has been noted by ICTSD and others, the intersection between these regimes poses genuine challenges and opportunities.[19] International trade and investment treaty rules may affect the viability and effectiveness of new regulations to address climate change.[20] For parties to the Kyoto Protocol, trade measures, such as eco-labelling, carbon taxes, export bans and restrictions, emissions trading schemes, border carbon adjustments and subsidies on low-carbon technology, can and should be included as mitigation measures likely to be undertaken in an effort to fulfill GHG-reduction commitments.[21] Within the ambit of the Kyoto Protocol, this would have a direct correlation to the investment of a state in the reduction of carbon and other GHGs in practice by offering industry incentives to reduce GHG use and also by creating an educated public that is able to make environmentally informed choices. Such measures can also confer economic advantages or disadvantages for those subject to new domestic regulations or those that can access new international regimes.[22]

New climate regulations, such as the attempt to include international and domestic air carriers under the carbon emissions rubric of the EU Emissions Trading System, may directly contradict key principles of WTO law, which prohibit arbitrary, unjustifiable or disguised restrictions on international trade and discrimination among like products due to process and production methods, and seek to lower technical barriers to trade (TBTs) in certain circumstances.[23] There is uncertainty as to whether the WTO Dispute Settlement Mechanism will choose a very strict interpretation of its provisions, finding trade restrictions undertaken for climate-change mitigation reasons to be in violation of WTO rules, or whether it will create a great area of leniency, for example deeming such provisions to be partially Article XX exceptions that are recognised under WTO treaty law.[24]

While new climate measures, including emissions regulations, might well restrict or constrain certain types of economic activity, they can also provide incentives for more sustainable development. The transition to a green economy, it has been persuasively argued, offers important potential benefits for developing countries.[25] This transition can be facilitated by the transfer of renewable energy technology, capacity building and

direct financing (including both investment and development assistance), that is offered through the global climate regime. Trade and investment disciplines can also play a positive role. For instance, reducing tariffs and other barriers to trade in clean technology products and environmental goods and services can facilitate global efforts to develop a low-carbon economy, offering new entries into a fast-growing and lucrative industry.[26]

3. INNOVATION FROM DIVERSITY: DIFFERENCES IN REGIONAL CONDITIONS AND APPROACHES

Rather than focusing on the traditional preferential trade agreements (PTAs) that were popular in the 1970s, this study focuses on a new era of RTAs that incorporate environmental and sustainable development considerations to varying degrees within their unique trade law frameworks.

Since the early 1990s, there has been a marked increase in RTAs.[27] An extensive literature examines whether RTAs can be considered 'building blocks' or 'stumbling blocks' to deeper WTO liberalisation,[28] but these debates are beyond the scope of this paper. Principal incentives for the negotiation of RTAs are often described in general terms, such as opening new markets, increasing economic growth, accessing cheaper imports and increasing foreign investment. This recognised, a diversity of regional conditions generates myriad priorities and opportunities, which in turn shape the RTA landscape. Leading countries are now seeking to harness economic integration initiatives under RTAs in order to achieve other objectives that are not exclusively economic and to address regional concerns through cooperation that includes both trade and other related provisions. Other strategic incentives have also been relevant to new trade agreements, such as efforts to send a strong signal that a country is considered a priority economic partner (for example the US-Korea Free Trade Agreement and the US-Colombia Free Trade Agreement), the desire to build regional economies of scale as a counterweight to other regional economic powers (such as MERCOSUR), or efforts to avoid being excluded from a powerful economic bloc — such as the Central America Free Trade Agreement (CAFTA). Such considerations have also spurred the accord of certain RTAs.

Based on the analysis of recent regional accords, this paper reveals that, with respect to sustainable development, several distinct models now exist for RTAs. Narrow RTAs focus on the establishment of an economic framework and the reduction of tariffs and trade barriers, often through a PTA or some other accord. Environmental or other considerations are usually excluded from these very specific economic agreements, and such models are not the focus of this study.

Broader models of RTAs, many negotiated more recently, tend to include provisions on further issues, such as investment, labour standards or environmental protection. Such RTAs, often with labour and environmental chapters or side agreements, establish mechanisms or institutions responsible for monitoring and enforcing environmental standards, assisting with environmental data collection and legislative reform and dealing with complaints.[29] For instance, NAFTA is formulated as a straight free-trade agreement (FTA), but it also establishes separate side-agreements to deal with environmental and labour concerns. The North American Agreement on Environmental Cooperation (NAAEC), a separate side agreement to NAFTA, establishes the Commission for Environmental Cooperation (CEC) as its implementation body, which is responsible for information exchange on environmental issues, assessing environmental impacts of proposed projects and dealing with complaints from private individuals concerning non-implementation of environmental laws by NAFTA parties. This model of RTA, with attendant versions, is often used by Canada, Mexico and the United States (US)_when negotiating with other countries. Most recently, it was also used by Australia and Japan. It is notable, however, that even when side agreements do exist there are often also provisions within the associated RTAs that address environmental concerns and provide general exceptions to RTA provisions when there is a threat to the environment.

Even broader RTAs may also be formed in contemplation of regional economic integration objectives. For example, MERCOSUR in Latin America and the Economic Community of West African States (ECOWAS), despite having been formed with a view to encouraging trade

liberalisation in the regions, also tackle their member states' shared concerns, such as the reduction of corruption and drug trafficking or legislative harmonisation. These RTAs focus on the formation of a common market, or an economic union, and progressively integrate their rules, often shaping collaborative agendas on different policy priorities as part of this process. Similar RTAs may be agreed as a means of promoting political dialogue and joint cooperation measures among the signatories, focused on ways to support sustainable development and related collaboration, with trade as simply part of the broader regional agreement. Such is the case in the EU partnership agreements with The Forum of the Caribbean Group of African, Caribbean and Pacific (ACP) States (CARIFORUM) , the Euro-Mediterranean Partnership and the different association agreements signed by the EU, which target various aspects of environmental and social development in the cooperation and trade chapters.

Though RTAs may vary extensively in content, focus and scope, they are all shaped by the priorities of states that are signatories, and certain trends can be noted as a result. The EU adheres to a sustainable development strategy, adopted in 2001 and revised in 2006, which seeks to promote sustainable development, requiring the EU's internal and external policies to integrate environmental, social and economic decision-making.[30] In the US, the Trade Act of 2002 imposes a responsibility on the US to ensure that trade and environmental policies are mutually supportive and to seek to protect and preserve the environment and enhance the international means of doing so. It also includes obligations to ensure that trade agreements do not weaken or reduce protection afforded in domestic environmental laws as an encouragement for trade and to include provisions on environmental protection.[31] In this way, powerful economic actors, such as the EU and the US, may pre-condition RTA negotiations on the inclusion of sustainable development, labour, environment and other provisions, though the exact measures adopted in each treaty vary.

In recent years, states have also undertaken procedural innovations in the negotiation of RTAs. Various new procedures have been adopted to ensure that, while the momentum gained in negotiating the trade agreement is not lost, sustainable development considerations form part of the trade agreement.[32] Successful RTA negotiations have, for instance, benefitted from the involvement of civil society and the promotion of high levels of transparency during the negotiation process. Facilitating public participation and consultation in negotiations has allowed stakeholders and even individual experts to influence the process. Such openness can help environmental or social concerns that may have been overlooked to be considered and addressed in the trade treaty. A further innovation in RTAs is the establishment of capacity-building mechanisms to support RTA negotiations and implementation. For instance, countries may be reluctant to accept new sustainable development and environmental responsibilities in RTAs, owing to fears that such obligations would impose burdensome financial and institutional requirements that they are incapable of providing. Capacity-building provisions thus establish institutional arrangements to train officials, advise on policy reform, assist in monitoring and enforcement of environmental provisions and usually include a funding mechanism to ensure financial support for such initiatives.[33] These procedural changes have secured the integration of environmental and social concerns into a trade and investment treaties.

Perhaps most relevant, many developed and developing countries now undertake ex-ante or ongoing environmental, developmental, human rights or sustainability impact assessments and reviews of trade liberalisation policies and draft treaties. In the US, Executive Order 13141, Environmental Review of Trade Agreements (November 1999) - later embodied in the Trade Act 2002 - and the Guidelines for Implementation of Executive Order 13141 (December 2000) establish the process for the assessment of environmental factors in the development of trade agreements by way of an environmental review. Similarly, in Canada, the 1999 Cabinet

Directive on the Environmental Assessment of Policy, Plan and Program Proposals and the 2001 Framework for Conducting Environmental Assessment of Trade Negotiations together require federal governments to undertake Strategic Environmental Assessments (SEAs) that analyse the environmental impacts of policy, plan and programme proposals and lay out the guidelines for doing so. The EU goes even further in what it terms its Sustainability Impact Assessments (SIAs). The SIA process is even more comprehensive in its analysis, as it also requires an examination of the social and economic aspects and impacts. All three programmes involve an initial scoping exercise, where all possible impacts and mitigation measures are considered, and all include a public consultation element, which allows members of the public to become involved in the process, including the scoping process, so that all possible effects and the opinions of the public are taken into account at an early stage.

Though not as thorough as EU and North American provisions, other countries also have similar measures in place to ensure that the impacts of trade measures are considered up front and inform the negotiation process. For example, New Zealand requires a National Interest Assessment (NIA) for all treaties to which New Zealand may become a party. This assessment must consider environmental, economic, social and cultural impacts of the proposed treaty.[34] Japan's Ministry of the Environment commissioned a study to investigate the environmental impact assessment methods that would be applied during Japan's FTA negotiation process and bases its Guidelines on Environmental Impact Assessment of Economic Partnership Agreements and Free Trade Agreements in Japan on the results of this study.[35] Japan has also collaborated with Korea's Ministry of Environment to conduct case studies on hypothetical trade agreements and in 2005 held a Joint Expert Seminar on Methods for the Assessment of Environmental Impacts by Free Trade Agreements in Japan.[36]

Ultimately, the results of these assessments are useful, as they may assist negotiators to identify the areas where preventive, cooperative or enhancement initiatives could be useful to promote climate-change objectives in a trade or investment treaty. These assessments also have the potential to identify areas where domestic law and policy reform is needed and can help to shape the reforms by providing timely guidance.

4. SUSTAINABLE ECONOMIC DEVELOPMENT PURPOSES OF RTAs

In the 1987 Report of the World Commission on Environment and Development,[37] the 1992 Rio Declaration and Agenda 21,[38] and the 2002 Johannesburg Declaration and Plan of Implementation,[39] countries clearly recognised that trade and investment law has the potential to provide important contributions to sustainable development. Reflecting these assertions, parties to trade agreements and international investment agreements have begun to explicitly highlight their shared commitment to sustainable development as part of the object or purpose of the economic treaty. For example, the parties to the 1994 NAFTA jointly recognise the need to 'promote sustainable development' within the preamble of the treaty.[40] Even if not reflected in the operational provisions of the treaties, the incorporation of sustainable development concerns in preambles generally offers clues as to the object and purpose of the RTAs themselves, providing guidance to the parties, and any dispute settlement bodies, on how they might interpret the agreement in the event of a dispute.

For example, the RTAs entered into by the US and Canada subsequent to NAFTA incorporate similar assertions regarding the promotion of sustainable development. The Canada-Chile Free Trade Agreement,[41] the Canada-Costa Rica Free Trade Agreement,[42] the Canada-Peru Free Trade Agreement,[43] the Oman-US Free Trade Agreement, the US-Colombia Free Trade Agreement and the Chile-US Free Trade Agreement all enshrine commitments to pursue and support policies that promote sustainable development in environmental and natural resource management. The US-Australia Free Trade Agreement provides that parties will conduct their activities "in a manner consistent with their commitment to high labour standards, sustainable development, and environmental protection."[44] The 2003 United States – Singapore Free Trade Agreement recognises that "economic development, social development, and environmental protection are interdependent and mutually reinforcing components of sustainable development, and that an open and non-discriminatory multilateral trading system can play a major role in achieving sustainable development."[45]

Embracing the promotion of sustainable development as part of RTAs does not end with the NAFTA partners. For example, the EU–Chile Association Agreement goes further than many of the US and Canadian RTAs by requiring parties to implement their obligations in accordance with a "principle of sustainable development."[46] The 2011 EU Association Agreement with Central America seeks to "harness globalisation in support of sustainable development" and "ensure an appropriate balance between economic, social and environmental components in a sustainable development context."[47] In a more integrated context, the parties to MERCOSUR's treaty establishing the common market note in the preamble that "the broadening of the current dimensions of national markets through integration is a fundamental condition to accelerate economic development with social justice" and that 'this objective must be achieved through more effective use of available resources, preserving the environment…"[48]

Through RTAs between North and North, North and South and even South and South countries, sustainable development has been recognise as a key objective, not only in the abstract, but in the very arenas that most seek to encourage economic growth – investment and trade policy and law.[49] As discussed, the NAFTA preamble notes a joint resolve to promote sustainable development by the parties. This was also the first RTA to be accompanied by an environmental side agreement. The provisions of this side agreement declare the promotion of sustainable development "based on cooperation and mutually supportive environmental and economic policies" as one of its main objectives.[50] Subsequent RTAs have followed suit, either with side agreements or with chapters and provisions relating to the environment and

sustainability that are integrated into the text of the regional economic accord itself. In the Canada-Peru FTA, at Chapter 17, the parties pledge to "recognize the mutual supportiveness between trade and environment policies and the need to do so in a manner consistent with environmental protection and conservation and the sustainable use of their resources."[51] In the EU-Columbia-Peru Agreement, parties agree to "promote international trade in such a way as to contribute to the objective of sustainable development" and recognize the benefit of considering environmental issues "as part of a global approach to trade and sustainable development."[52] The EU-Eastern and South African States (Interim) Economic Partnership Agreement (EU-ESA EPA) refers to the need to mainstream environmental issues into trade and development.[53]

But, these general statements of intent, no matter their potential interpretive value, are not the 'state of the art' in RTAs. As will be discussed below, to operationalise these preambular and related declarations, many states have taken on further and more specific commitments. These include provisions for (1) 'waivers or windows' to avoid conflicts with climate change and other sustainable development related provisions, (2) deeper cooperation arrangements through specific provisions in side agreements and other chapters of RTAs, (3) actual enhancement of trade and investment in specific sectors of relevance to climate change, such as environmental goods and services, renewable energy, carbon markets, organic agriculture, sustainable transport and sustainably harvested forests. These are explored in greater detail below.

5. 'WINDOWS' FOR CLIMATE AND ENERGY MEASURES IN RTAs

Over the past two decades, many observers have raised the concern that trade agreements might prevent or weaken the adoption and enforcement of legitimate measures for health, the environment and the conservation of natural resources.[54] To accommodate such policies, however, the WTO agreements and many RTAs contain provisions that establish exceptions, or 'windows,' in trade policy. Such exceptions may be particularly relevant for adaptation, mitigation and financing measures to respond to climate change in developing countries.

Climate change is a new challenge for many regulators, and new measures are required to respond, including measures to stimulate development of clean-energy technologies that provide alternative ways to meet growing energy demand without increasing emissions. Without such 'windows' in trade and investment treaties, both real and perceived conflicts might arise, 'chilling' the new regulatory measures that are required. Carefully crafted exemptions from trade rules, such as Article XX of the 1994 GATT, can provide flexibility for regulators in signatory countries, providing guidance for countries that are evaluating or developing regulations that might affect trade. In essence, such 'windows' send the signal that trade disciplines will not be applied in certain situations, where they might constrain regulators and policymakers from adopting or applying measures to address – among others – health, environment and natural resources challenges related to climate change. This section discusses existing windows and their impact on trade agreements.

5.1 Exceptions for Measures Related to Climate Change and Sustainable Energy Mechanisms

In many regional trade and investment agreements, states have adopted general exceptions similar to those in the WTO Agreement, though with distinct wording. Such exceptions are provided for measures related to the conservation of exhaustible living and non-living natural resources and the use of measures, including environmental measures, necessary to protect human, animal, or plant life or health. Such 1994 GATT Article XX-style 'general exceptions' are now common in many RTAs,[55] but these RTAs also go further. For instance, the EU – Korea Free Trade Agreement, signed on 6 October 2010, and provisionally applied since 1 July 2011, provides both a general exception and further specific exceptions. Similar to other modern RTAs, Article 2.15 simply directly notes the parties' reliance on Article XX of the 1994 GATT. However, further 'windows' are found throughout the agreement. At Article 6.1(g), the parties indicate that measures taken pursuant to the agreement for trade facilitation "shall not prejudice the fulfilment of legitimate policy objectives, such as the protection of national security, health and the environment."[56] At Article 7.50, similarly, parties are permitted to take non-discriminatory measures to protect "human, animal or plant life or health," as well as natural resources, or national treasures and artistic objects. Similarly, as mentioned above the Central America – Dominican Republic Free Trade Agreement of 16 April 1998 adopts 1994 GATT-style general exceptions, but alongside, at Article 10.07 on Services, further environmental exceptions are provided. Along the same lines, in Article 13.13 on TBTs, there are specific exceptions for hazardous waste and the environment.

A more comprehensive approach was adopted by the parties to the EU-Colombia-Peru Trade Agreement, which was signed on 26 June 2012. Article 275 of this RTA explicitly addresses climate change. Starting with a commitment, the parties indicate their resolve "to enhance their efforts regarding climate change, which are led by developed countries, including through the promotion of domestic policies and suitable international initiatives to mitigate and to adapt to climate change."[57] Then, highlighting the need for a rapid transition to a low-carbon economy, the parties indicate their commitment to promote the sustainable

use of natural resources, as well as to "promote trade and investment measures that promote and facilitate access, dissemination and use of best available technologies for clean energy production and use, and for mitigation of and adaptation to climate change."[58] These provisions are discussed in further sections of this study. What is useful about such statements for the purposes of 'windows,' however, though they focus mainly on cooperation and trade enhancement, is that a future objection to such measures, such as to challenge a new climate law or policy, can be interpreted in light of the commitment to adopt such measures, which is found in Article 275. While no blanket exception or reservation is being provided, the commitment to "promote trade and investment measures" for climate responses demonstrates that the object and purpose of the RTA is not to block the use of trade and investment-related measures to address climate-change issues. However, the imposition of new environmental restrictions on established investments may result in a dispute complaint against the state for violation of treaties obligations, as occurred in Vattenfall AB v. Germany,[59] owing to the imposition of restrictions to a coal-fired power plant after it had been issued the operation permit. Although this case ended up in a settlement in 2011, it sets a precedent concerning the limit of the "windows" according to the fair and equitable treatment as an investment principle.

The above-mentioned agreement provides other specific exceptions. For instance, at Article 174(b), a specific exception is provided in terms of government procurement. This notes that the government procurement clauses of the RTA will not "be construed to prevent a Party from adopting or maintaining measures: […] (b) necessary to protect human, animal or plant life or health, including the respective environmental measures; […]."[60] In essence, the parties adopted a general exception in the style of the 1994 GATT Article XX, specifically for procurement policies, granting clarity to regulators seeking to understand whether 'green' performance requirements or specifications, or other procurement measures of great importance to climate-change mitigation and climate finance, might be permitted by their country's trade agreements.

States have further adopted specific exceptions in RTAs regarding areas where it is possible that trade rules on i*nter alia* sanitary and phytosanitary standards, TBT, intellectual property rights, public procurement, services or investment, might constrain the use of climate=change measures, including those related to promotion of sustainable energy, and climate change induced environmental emergencies.

As one example, Chapter 6 of the 2008 Canada – Peru Free Trade Agreement, addressing TBTs, provides the following specific exception:

> "1. Each Party shall ensure that transparency procedures regarding the development of technical regulations and conformity assessment procedures allow interested parties to participate at an early appropriate stage when amendments can still be introduced and comments taken into account, *except where urgent problems of safety, health, environmental protection or national security arise or threaten to arise*."[61]

Similar exceptions are also found in the 1998 CARICOM-Dominican Republic Free Trade Agreement, where TBT disciplines are agreed in Appendix VI to Annex I; however, flexibility is provided for notification requirements at Article X.3(v). In the same Agreement, Article IV requires parties to use international standards, but is open to exceptions where these would be an ineffective or inappropriate means to fulfil its legitimate objectives, which explicitly include health, environment and sustainable development objectives.[62]

As another example, Article 150 of the EU-CARIFORUM Economic Partnership Agreement, signed on 15 October 2008, contains a specific exception for genetic resources, traditional knowledge and folklore in the subsection on standards concerning intellectual property rights. Article 150 notably indicates the parties' commitment to:

> "respect, preserve and maintain knowledge, innovations and practices of indigenous and local communities embodying traditional lifestyles relevant for the conservation and sustainable use of biological diversity."[63]

Article 150 specifically allows the parties to provide legislation and regulations for the protection of biodiversity and the recognition of traditional knowledge as an exception to the general intellectual property clauses contained in the RTA. This exception would likely facilitate domestic measures to harness traditional knowledge for climate-change adaptation, such as regulations to facilitate biodiversity-based medicines should disease vectors change, or new plantings of traditional crops that are known to be drought or flood resistant. It might also prevent intellectual property rights (IPR) disciplines from being used to restrict requirements on transfers of technology for climate mitigation, should these be related to biological materials.[64]

Such recognition, conversely, allows the EC and CARIFORUM parties to require that the origins of genetic resources and biological materials be identified as part of a patenting process, permitting sharing of benefits and, therefore, potentially facilitating broader diffusion of the biological materials. Such biological materials could support climate- change adaptation and mitigation measures, whether applied to traditional medicines for disease control, new crops for climate-smart agriculture or other species for reducing emissions from deforestation and forest degradation (REDD+).

Further such 'specific exceptions' of relevance to climate change include, for instance, Article 273 of the EU-Colombia-Peru Trade Agreement, which addresses trade in forest products.[65] The measures provided in Article 273 notably encourage "the development of systems and mechanisms that allow verification of the legal origin of timber products throughout the marketing chain" and "the strengthening of control mechanisms for timber production, including through independent supervision institutions, in accordance with the legal framework of each Party." Article 273 specifically permits and encourages domestic legislation and procedures to promote the sustainable management of forests, which is important for the mitigation of GHGs that cause climate change, including through access to REDD+ climate finance mechanisms.

Article 274 of the EU-Colombia-Peru Trade Agreement addresses trade in fish products, which is a sensitive issue in terms of adaptation to climate change due to the effects of modified weather patterns on fish stocks. The parties "recognise the need to conserve and manage fish resources in a rational and responsible manner, in order to ensure their sustainability." They agree to cooperate under the auspices of regional fisheries management organizations (RFMO) in order to:

> ... (b) adopt effective tools for the monitoring and control, such as observer schemes, vessel monitoring schemes, transhipment control and port state control, in order to ensure full compliance with applicable conservation measures;
>
> (c) adopt actions to combat illegal, unreported and unregulated (IUU) fishing; to this end, the Parties agree to ensure that vessels flying their flags conduct fishing activities in accordance with rules adopted within the RFMO, and to sanction vessels under their domestic legislation, in case of any violation of the said rules.[66]

In the context of RFMO collaboration, the parties are therefore careful to preserve and even to enhance their capacity to regulate the sustainable use of fish stocks. This flexibility could be very important for efforts to secure sustainable development of fisheries as a climate-change adaptation strategy or to promote marine conservation. As climate change affects marine weather systems, ocean acidification and temperatures, altering migration patterns, the locations of breeding grounds and other factors, such measures may be essential to prevent climate change from threatening both marine ecosystems and human livelihoods.

5.2 Regulating Conflicts between RTAs and Climate/Energy Accords

States can also include general interpretive statements in RTAs to guide areas where trade rules could otherwise potentially constrain the use of measures agreed in other international (or regional) agreements. States sometimes agree within multilateral environmental agreements (MEAs) to specific trade obligations in order to achieve sustainable development objectives. For example, the Montreal Protocol contains measures restricting trade with non-parties to the protocol in goods that contain or were produced using prohibited ozone-depleting substances.[67] The mechanisms of interaction between MEAs and WTO or RTA trade obligations are far from clear.[68] Clarification of these interactions within the RTAs themselves is important to the emergence of a coordinated international sustainable development law framework.

Article 13.5 of the EU-Korea Free Trade Agreement explicitly addresses the relationship of the RTA with MEAs and with respect to climate change.[69] In a more comprehensive fashion, in Article 270, the EU-Colombia-Peru Trade Agreement notes that:

> 1. The Parties recognise the value of international environmental governance and agreements as a response of the international community to global or regional environmental problems and stress the need to enhance the mutual supportiveness between trade and environment. In this context, the Parties shall dialogue and cooperate as appropriate with respect to trade-related environmental issues of mutual interest.[70]

Paragraph 2 of Article 270 then affirms the commitment of the parties to implement into their domestic laws and practice the Kyoto Protocol to the UNFCCC adopted on 11 December 1997, though at paragraph 4, the parties also stipulate that there are limits where there would be arbitrary discrimination or a restriction on trade.

The parties to the EU-Colombia-Peru Trade Agreement were careful to preserve the ability to fulfil their obligations under a variety of MEAs, including the Kyoto Protocol. However, they condition this by the requirement that such measures shall not be applied in such a way as to discriminate between parties or act as a disguised restriction on trade, similar to the 'chapeau' in Article XX of the 1994 GATT.

Annex 20-A of Korea-United States Free Trade Agreement (KORUS) includes seven MEAs referred to under Article 20.2. Given that the US is one of the two parties, this list does not include prominent MEAs, such as the UN Convention on Biological Diversity or the UNFCCC. Interestingly, however, Article 20.10.3 of KORUS seeks to address the issue of potential conflicts between KORUS and MEAs in a more general way, stating that parties should balance their obligations under each agreement and that they are not precluded from taking measures pursuant to the MEA provided they are not a disguised restriction on trade.

5.3 Preventing Lower Investment Standards

In many RTAs, states are also adopting commitments not to lower health, safety, environmental and related standards to attract foreign investment, in order to prevent a 'race to the bottom.'[71] These provisions may favour climate-change measures, preventing investment disciplines from inadvertently stifling the adoption of higher standards in response to climate adaptation or mitigation opportunities.

Echoing Chapter 11 of the NAFTA, Section G-14 of the Canada-Chile Free Trade Agreement, signed on 5 December 1996, provides for these exceptions with the caveat that they cannot be waived in the event they cause issues for potential investors.[72] Insofar as climate-change measures can be construed as health, safety or environmental measures, this RTA would prevent parties from relaxing climate-change measures in order to encourage investment. However, it should be noted that Section G-15 for Energy Regulatory Measures further states that:

> Each Party shall seek to ensure that in the application of any energy regulatory measure, energy regulatory bodies within its territory avoid disruption of contractual relationships to the maximum extent practicable, and provide for orderly and equitable implementation appropriate to such measures.[73]

In many other accords, further guidance is provided for regulators. For instance, in Article 13.7 of the EU – Korea Free Trade Agreement, the parties commit not to use the relaxation of environmental or labour standards as an investment incentive. As a second example of the latter, in 2006, the US signed a comprehensive FTA with Peru. This agreement features a chapter on the environment, which agrees not to weaken or reduce the protections of environmental laws to encourage trade and investment, as mentioned above. It also agrees not to fail to effectively enforce environmental regulations in a manner affecting trade or investment.[74] Such provisions provide greater clarity to regulators as to whether other provisions of trade treaties might be intended to strike down or weaken new environmental laws or to prevent their enforcement.

Following this trend, other foreign investment regulation instruments, such as the International Investment Agreements (IIA) and Bilateral Investment Treaties (BIT) started to include similar provisions to prevent lower investment standards. Furthermore, the new version of the US BIT Model[75] expands obligations in the area of environment committing parties not to waive or derogate from their domestic environmental laws as an encouragement for investment and not to fail to effectively enforce their domestic labour and environmental laws as an encouragement for investment.[76] Although, these new obligations are still not existent in the general investment treaties landscape, it is expected that the future negotiations between US and BRIC (Brazil, Russia, India and China) countries under this new model will continue to integrate environmental matters in investment regulation.

These mechanisms serve simply as 'windows' in trade disciplines, if interpreted to preserve the flexibility of a regulator responding to new challenges, such as climate change, particularly in situations where scientific information is uncertain.[77] More interesting, perhaps, are the new provisions in RTAs that promote actual cooperation on climate-change issues, or seek to enhance trade and investment liberalisation in the interest of climate adaptation and mitigation responses.

6. ADDRESSING CLIMATE CHANGE COOPERATIVELY THROUGH RTAs

In addition to the general commitments and different types of 'exceptions' highlighted in previous sections, the parties to a growing number of RTAs are establishing mechanisms for new and additional climate change-related cooperation strategies. Such cooperation arrangements are being piloted either as separate side agreements, as chapters of the trade treaties or sometimes both. They address diverse forms of collaboration.

6.1 Strengthening Laws to Address Climate Change

In many of the RTAs surveyed, the parties include provisions committing to improve and strengthen laws or their enforcement, including regulations addressing climate change. Such provisions may be included in cooperation chapters of an RTA or its side agreements, as part of an overall commitment to cooperate and strengthen enforcement of environmental laws in general or under the RTA.[78] Factual report or complaint mechanisms, which provide recourse when it appears that rules are being violated in order to gain trade or investment=related advantages, may also be assisting in this work, especially if accompanied by reliable capacity-building programmes.[79]

Furthermore, RTAs have become more specific, noting that parties will support improved enforcement of MEAs, including the UNFCCC.

One example of the latter is found at Article 287 of the EU - South Korea Free Trade Agreement, which refers to multilateral environmental standards and agreements, noting that:

> 2. The Parties reaffirm their commitment to effectively implement in their laws and practice the multilateral environmental agreements to which they are parties including: (a) the Montreal Protocol on Substances that Deplete the Ozone Layer... (g) the Kyoto Protocol to the United Nations Framework Convention on Climate Change.[80]

Similar provisions are found in the Canada-Chile FTA,[81] the Canada-Costa Rica FTA,[82] the Canada-Colombia FTA[83] and the US-Central America-Dominican Republic FTA,[84] among others.

Such agreements could be interpreted to reaffirm the parties' commitments to effectively implement the 1997 Kyoto Protocol and the 1992 UNFCCC, essentially taking into account parties' international climate-change commitments (as relevant) within the text of the trade treaty. Such provisions could serve both as interpretive 'windows' for regulator flexibility, indicating that provisions of the treaty are not intended to undermine new regulations and other measures under the Kyoto Protocol as discussed above, and to open doors for new collaboration for implementation of the Protocol within the context of the trade treaty.

6.2 Promoting Climate Finance Instruments and Carbon Markets

In several leading RTAs, the parties have included specific plans to cooperate in fostering the adoption and utilisation of international or national climate finance instruments. These include commitments to undertake capacity and institution building activities specifically to implement the Clean Development Mechanism (CDM) of the Kyoto Protocol, or REDD+, as well as commitments to assist in developing domestic carbon markets. As one example, the Mexico-Japan Free Trade Agreement contains a specific provision determining cooperation related to capacity building in order to strengthen the parties' abilities to implement the CDM:

> Article 147 - Cooperation in the Field of Environment

> 1. The Parties, recognising the need for environmental preservation and improvement to promote sound and sustainable development, shall cooperate in the field of environment. Cooperative activities under this Article may include:
>
> …(b) promotion of capacity and institutional building to foster activities related with the Clean Development Mechanism under the Kyoto Protocol to the *United Nations Framework Convention on Climate Change*, as may be amended, by means of workshops and dispatch of experts, and exploration of appropriate ways to encourage the implementation of the Clean Development Mechanism projects…

In certain RTAs the parties also commit to provide assistance for the development of domestic carbon markets. For instance, in the 2011 EU-Central America Association Agreement, at Article 50, the parties commit to cooperate on global issues, particularly climate-change mitigation and adaptation to its adverse effects, including by jointly facilitating "the strengthening of carbon market mechanisms."[85] Similarly, within the text of the EU-Colombia-Peru Agreement, Article 271 on Trade Favouring Sustainable Development recognises that "flexible, voluntary and incentive-based mechanisms can contribute to coherence between trade practices and the objects of sustainable development," encouraging parties to develop and use such mechanisms.[86]

A more nuanced approach, however, is found in the recent EU-Singapore RTA, which will address both sustainable development and green energy.[87] Although the full textual details of this agreement have yet to be made public, it is clear that some of the essential elements of the agreement are the inclusion of climate change and associated provisions as well as sustainability and green growth.

These types of mechanisms are starting to be adopted, in particular to collaboratively facilitate access to climate finance and to support the establishment and strengthening of carbon markets, in some of the most innovative RTAs. Beyond the scope of this initial survey, they are worthy of detailed case studies to investigate whether, in its implementation, the cooperation is starting to deliver economic development and climate-change mitigation results on the ground within the parties to the trade agreement.

6.3 Promoting Climate-Change Technologies

Some environmental side agreements are signed alongside RTAs and contain specific provisions to facilitate technology transfer, including the development of clean-energy technologies, which is important to climate=change mitigation and adaptation in particular.[88] For instance, the Canada-Peru Side Agreement on the Environment agrees on new collaboration to promote sustainable use of natural resources, forests management and use. It also highlights a commitment to the joint development of clean technologies, as a priority.[89]

Other broad RTAs include chapters or sections on cooperation that focus on clean technologies and technology transfer. In 2010, the EU signed an economic association agreement with the Central American countries. This agreement covered political dialogue, trade and cooperation measures. In Cooperation at Article 50, the parties established a channel for cooperation on environment, with several measures referring to technology transfer.[90] Similarly, in the CARIFORUM-EU Economic Partnership Agreement,[91] the parties agreed to cooperate, including by facilitating support for projects related to environmentally friendly products and technologies, and to projects related to energy efficiency and renewable energy.[92] Indeed, the EU has been very diligent in pursuing clean technology collaboration. Commitments to encourage and support efficient, affordable renewable energy initiatives have been adopted in the EU-South Africa Trade, Development and Cooperation Agreement (TDCA),[93] the EU–ESA Economic Partnership Agreement,[94] the EU–South Korea FTA,[95] and the Mexico–EU Association Agreement.[96]

Such provisions are not just found in the agreements that developed countries negotiate with developing countries. For instance, at Article 18.3 of the Chile-Colombia FTA, the parties agree to support green markets.[97] Similarly, Article 20.13 of the Guatemala-Taiwan FTA outlines new cooperation between the parties in the energy sector. In this treaty, the parties agree on the need to design more efficient processes for power generation, to provide support to alternative energy sources that protect the environment and to promote renewable energy and recycling projects. The treaty emphasises cooperation between institutions responsible for energy issues and the formulation of energy policy.[98]

As a foundation for technology transfer and other activities, many RTAs also open channels to encourage information and best practice exchanges and to promote scientific collaboration. These RTAs either focus directly on scientific exchanges related to climate-change adaptation and mitigation, particularly renewable energy technologies, or provide further cooperation in other sectors that are crucial for climate law and policy. As an example of the former, the above-mentioned 2008 CARIFORUM-EU Economic Partnership Agreement specifically commits, in further elements of Article 138, to cooperation on eco-innovation to foster energy efficiency and renewable energy.[99] In these provisions, the parties agree to work together to foster innovation that benefits the environment across all sectors of their economies and explicitly highlight their interest in working together on eco-innovation to achieve energy efficiency and promote renewable sources of energy. The treaty highlights the use of eco-innovation networks and clusters, including private-public partnerships.

To support the diffusion of new technologies and to offer incentives for cleaner, climate-friendly goods and services, certain RTAs are also starting to adopt provisions to encourage or even collaborate on improving standards, alongside mutual recognition of certification systems. Examples of such collaboration are found in the Nicaragua-Taiwan Free Trade Agreement[100] and the EU-Albania Association Agreement.[101] Perhaps one of the more advanced illustrations of this approach, however, is found in the recent EU-Singapore RTA. While the agreement is yet to be initialed and released, it is said to contain extensive commitments to encourage green growth, including renewable energy technologies.[102]

These types of mechanisms are starting to be adopted, particularly for the diffusion of renewable energy and energy-efficiency technologies, in some of the most innovative RTAs. Although they are beyond the scope of this initial survey, they merit detailed case studies to investigate whether, in their implementation, the cooperation that was envisioned is proving useful.

6.4 Developing Climate Change Disaster Risk Reduction

A few RTAs are even more comprehensive in their approach to climate change, not only including provisions on climate mitigation, but also addressing adaptation and disaster risk reduction. For instance, the EU-Central America Association Agreement, at Article 51 on the Management of Natural Disasters states:

> 1. The Parties agree that co-operation in this field shall aim to reduce the vulnerability of the Central American region to natural disasters through supporting national efforts, as well as the regional framework for the reduction of vulnerability and response to natural disasters, strengthening regional research, disseminating best practices, drawing from lessons learnt in Disaster Risk Reduction, preparedness, planning, monitoring, prevention, mitigation, response and rehabilitation. Co-operation shall also support efforts towards the harmonisation of the legal framework according to the international standards and the improvement of institutional co-ordination and government support.
>
> 2. The Parties shall encourage strategies that reduce social and environmental vul-

nerability and strengthen capacities of local communities and institutions for disaster risk reduction. 3. The Parties shall place particular attention on improving disaster risk reduction in all their policies, including territorial management, rehabilitation and reconstruction. [103]

Such provisions, while not focusing only on climate-change response, are particularly relevant given the ongoing struggle, in Central America, to reduce the risks of disasters that may be caused or exacerbated by climate change, including through hamornisation of international frameworks.

7. SUSTAINABLE TRADE MECHANISMS IN RTAs

In a growing number of RTAs, countries are choosing to go further than the simple adoption of cooperative environment and climate-change agendas in parallel with a trade treaty and even cooperation within the context of the treaty to access climate finance and strengthen carbon markets, to encourage energy efficiency and renewable energy technologies and to improve standards or address disaster-risk reduction.

In the most innovative RTAs, governments are also taking on commitments to be proactive, adopting new treaty measures that enhance trade and investment flows of goods and services that are climate friendly. This type of new instrument offers further and potentially the best possibilities for a positive 'triple-win' to be achieved for climate-change priorities within the framework of a trade agreement, not least because it can harness the specialized trade and investment knowledge and practice community.

As proposed in trade, investment and climate law literature, such economic law provisions could include, for instance: measures to enhance trade in climate-friendly goods and services, including through additional liberalisation of environmental goods and services (energy services, waste management and low-carbon transportation); sanitary and phytosanitary provisions that promote scientific cooperation and risk assessment to improve levels of health or environmental protection for adaptation to climate risks;[104] government procurement disciplines that make public purchasing of low-carbon goods or services more affordable; reductions in TBTs that implement non-discriminatory certification processes or support mutual recognition of standards; intellectual property rights provisions that encourage low-carbon technology transfer or respect for traditional knowledge that assists climate adaptation; investment provisions that privilege socially responsible corporations and low-carbon investments; trade measures to reduce illegal trade in forestry products; or measures to reduce unsustainable fossil-fuel development subsidies.[105] A few actual examples of these types of innovative provisions, which reduce barriers to trade and investment in ways that respond to climate change, are provided below.

7.1 Enhancing Trade in Climate Friendly Goods and Services

Perhaps the most advanced and apposite new measures, adopted in many of the RTAs surveyed for this paper involve liberalizing trade in environmental goods and services (EGS).1 Encouraging this trade can create new markets and export opportunities, provide access to green products or services with lower costs and potentially support efficiencies and the faster adoption of new technologies.2 Increased deployment of less expensive and better-quality EGS may help countries pursue their national climate-change response and clean-energy policy objectives, facilitating the transition to a green economy.

Barriers to trade remain for EGS, as it is estimated that average world tariffs on EGS are bound at a level of 8.7 percent, almost three times higher than the average applied rate for all goods – considering full use of preferences – at 3 percent.[108] Negotiations on EGS liberalisation are included in the WTO Doha Round mandate, which at paragraph 31(iii) called for the "reduction or, as appropriate, elimination of tariff and non-tariff barriers to environmental goods and services."[109] This mandate, however, neither defined 'environmental goods and services' nor confirmed the speed or depth of liberalisation to be achieved, and negotiations have made only slow progress. As proposed by the Organisation for Economic Co-operation and Development (OECD), the EGS industry includes: "activities which produce goods and services to measure, prevent, limit, minimise or correct environmental damage to water, air and soil as well as problems related to waste, noise and ecosystems." [110] Uncertainties persist, however, and it remains to be seen how climate-

friendly goods and services might fare in WTO negotiations, including the identification of specific environmental goods for liberalisation.

In face of these challenges, and given the relevance of liberalizing EGS trade for the achievement of green economy and climate-change objectives, countries are choosing to pursue liberalisation of certain EGS through other frameworks such as regional or bilateral trade agreements. Provisions can be general, encouraging all EGS liberalisation, or, as in a few interesting new RTAs, quite specific to climate change.[111]

General provisions are found, for instance, in the Canada-Peru Side Agreement on the Environment, which simply notes that the parties will promote trade and investment in EGS.[112] US RTAs also commonly include provisions opening up market access for EGS, as found in the US–Morocco FTA.[113] The US Trade Act of 2002 explicitly establishes that a principal trade negotiating objective is to seek new market access, through the elimination of tariffs and non-tariff barriers, for US environmental technologies, goods and services. In the above-mentioned CARIFORUM-EU Economic Partnership Agreement, parties also agree to support rapid liberalisation of trade in EGS.[114]

More detailed measures that directly promote trade in EGS for sustainable energy development are also found in the 2009 EU-South Korea FTA. At Article 13.6 on Trade Favouring Sustainable Development, the EU-South Korea FTA agrees that:

> 2. The Parties shall strive to facilitate and promote trade and foreign direct investment in environmental goods and services, including environmental technologies, sustainable renewable energy, energy efficient products and services and eco-labelled goods, including through addressing related non-tariff barriers. The Parties shall strive to facilitate and promote trade in goods that contribute to sustainable development, including goods that are the subject of schemes such as fair and ethical trade and those involving corporate social responsibility and accountability.[115]

Similar provisions are found in the EU-Peru-Colombia RTA, which is also highlighted above for its cooperative measures.[116] As a third and recent example, the EU-Singapore RTA builds on these provisions, taking a more detailed approach. According to announcements, the treaty is the EU's first 'green FTA', and has been especially designed to promote green growth, in line with the EU's "2020 Strategy" for a competitive economy. As noted by the EU, this RTA contains a "novel discipline to tackle barriers to trade and investment in renewable energy generation has been developed. In addition, there are solid commitments on environmental services, new rules on green tendering as well as provisions on cooperation to address illegal fishing and timber."[117]

In these RTAs, not only are the parties committing to strive to facilitate and promote trade and foreign direct investment in EGS, they have agreed to specifically highlight and encourage environmental technologies, sustainable renewable energy, and energy efficient products and services. They also include eco-labelled goods, and agree to address non-tariff barriers to trade in these areas. In essence, they are activating trade law to support climate-friendly goods and services.

These types of mechanisms are starting to be adopted in some of the most innovative RTAs. Beyond the scope of this initial survey, they are worthy of detailed case studies to investigate whether in their implementation, the trade and investment liberalisation envisioned is occurring and proving useful as a means of addressing climate change.

7.2 Enhancing Trade in Sustainable Forest Products and Agriculture

Beyond clean-energy cooperation and measures to enhance trade in EGS, RTAs are also encouraging the development of a specific form of investment to address climate change: payments for ecosystem services, in particular;

climate finance for reducing emissions from deforestation; and land degradation and more (REDD+).[118] For instance, in the EU-Central America Agreement, Article 289 on Trade in Forest Products provides that:

In order to promote the sustainable management of forest resources, the Parties commit to work together to improve forest law enforcement and governance and to promote trade in legal and sustainable forest products through instruments that may include, inter alia: effective use of CITES with regard to endangered timber species; certification schemes for sustainably harvested forest products; regional or bilateral Forest Law Enforcement Governance and Trade ("FLEGT") Voluntary Partnership Agreements.[119]

Agriculture is a related sector in which trade and investment agreements can play a useful role for climate mitigation and adaptation. To the extent that agricultural trade and investment bring access to new technologies and techniques, it may be crucial for effective responses to climate change. For instance, new agricultural technologies are being developed for climate-change mitigation, such as changes in feedstock and other methods to reduce the production or escape of methane GHGs. Similarly, for adaptation, increased trade in crops that are drought, flood or salt-water resistant, as well as investment in new forms of soil management, irrigation and other agricultural techniques, may be crucial to address climate change.

Certain RTAs provide for agricultural science and technology collaboration mechanisms that can also be activated to respond to climate change.[120] However, while RTAs have innovative provisions to secure agricultural cooperation, including commitments which might be useful to clarify whether climate-smart agriculture could be enhanced or cooperatively developed, climate-change issues are rarely mentioned directly in agricultural provisions. Trade agreements are more general, in terms of agriculture. For instance, in the 2004 Mexico-Japan Free Trade Agreement, the parties highlight at Article 145 on Cooperation in the Field of Agriculture:

> 1. The Parties, recognizing that the development in the field of agriculture in both Parties is of mutual interest and of economic and social importance for the rational and sustainable use of natural resources, shall cooperate in the field of agriculture. Such cooperation may include: (a) exchange of information and data regarding experience of rural development, know-how of financial assistance to *farmers and the agricultural cooperatives system*; (b) encouragement of dialogues and exchange of information between entities other than the Governments of the Parties concerning agriculture; and (c) encouragement of joint scientific and technological research in agriculture including new technologies.[121]

Essentially, while the intentions are to support sustainable development in the field of agriculture in both parties, and it is recognised as economically and socially important for the rational and sustainable use of natural resources, most collaboration and financing is delegated to a cooperative subcommittee, one that does not have a mandate to specifically consider climate change.

7.3 Subsidies for the Low-Carbon Economy

Leading studies and initiatives have identified significant gains to be achieved, if fossil- fuel subsidies could be reduced from current levels through liberalisation.[122] In spite of these convincing arguments, and the potential that exists, there remain few examples of RTAs that specifically seek to reduce subsidies for unsustainable energy and other fossil fuels. In this area, there is still a great deal to be done to achieve both reductions of harmful subsidies, and important climate-change objectives.

In the other direction, however, certain RTAs are starting to open policy space to provide support, including potential subsidies, for important improvements, such as clean-energy technologies. In a few RTAs, parties agree to permit and encourage development of clean energy, including potentially through subsidies, though in other cases, support is also mentioned for conventional sources of energy. For instance,

certain provisions in the EU - Central America Association Agreement might be interpreted as permitting the establishment of a subsidy for green technologies between the parties. For example, Article 50 opens the door to "creation of incentives and mechanisms for innovation and environmental protection…"[123] Indeed, in a few leading RTAs, parties specifically commit to support new measures that can promote and incentivize sustainable-energy collaboration. These grants and subsidies can be integrated into broader agreement on energy sector collaboration, which also includes enhancement of trade and investment in the sector. For instance, the 2007 FTA between El Salvador and Honduras and Taiwan provides for specific measures related to sustainable energy, stating that:

> 1. The objective of the cooperation between the Parties will be the development of their corresponding energy sectors, focusing on the promotion of technology transfer and sectorial regulation. 2. The cooperation in this field will be carried out, mainly, by means of… support for the use of alternative and renewable energies that protect the environment… 3. Grant cooperation to the institutions in charge of energy issues and formulation of energy policies.[124]

As such, provisions in a few leading RTAs can be interpreted to recognise and support subsidies for clean-energy technology development and transfer, among other eco-innovations. While direct provisions on subsidies for climate measures, beyond the cooperative provisions mentioned above, are still rare in RTAs, there are signals of willingness to negotiate such collaboration.

7.4 International Standards for Clean Energy and Low-Carbon Development

Beyond those RTAs discussed above, there are many further interesting innovations in relation to provisions on standards that, while touching on various environmental, economic and social matters of importance, are also deeply related to climate change. For the purposes of this brief discussion, two examples are simply signalled below. First, the EU-Colombia-Peru Free Trade Agreement, at Article 278 on Scientific Information, states:

> The Parties recognise the importance, when preparing and implementing measures aimed at protecting health and safety at work or the environment which affect trade between the Parties, of taking into account scientific and technical information and relevant international standards, guidelines or recommendations, while acknowledging that, where there are threats of serious or irreversible damage, the lack of full scientific certainty should not be used as a reason for postponing protective measures. Peru interprets this Article against the background of Principle 15 of the Rio Declaration on Environment and Development.[125]

This provision may permit the parties to use Principle 15, the precautionary principle, in determining whether measures must be implemented to protect health, safety at work and the environment. Such a provision might prove to be of excellent operational value in securing regulatory flexibility for developing country governments faced with challenges in securing full scientific certainty when reacting to climate change, particularly in terms of adopting international standards or choosing to apply more stringent rules to certain products, such as fossil fuels.

Following a different approach, as mentioned above, the EU–South Korea Free Trade Agreement, at the Annex establishing Cooperation measures on Trade and Sustainable Development, agrees on: "exchange of information and cooperation on corporate social responsibility and accountability, including on the effective implementation and follow-up of internationally agreed guidelines, fair and ethical trade, private and public certification and labelling schemes including eco-labelling and green public procurement."

These provisions on corporate and social responsibility offer a further innovation that could be relevant to private and voluntary transactions in carbon markets, including carbon offsets and schemes to recognise 'carbon neutral'

undertakings by national and international firms. Such provisions are also found in other recent EU agreements, as discussed above. In terms of corporate responsibility, it is notable that the US-Singapore Free Trade Agreement includes provisions regarding the establishment of "corporate stewardship."[126]

Of course, the references in environmental cooperation agreements to 'collaboration on standards', and these brief innovative references to precaution, or to corporate social responsibility for internationally agreed guidelines and eco-labelling, are far from the creation of a clear certification system to favour trade in climate-friendly goods and services, supported by monitoring and verification and tied to market access. They do not, as yet, take the approach that is demonstrated in, for instance, RTAs like the US-Peru Free Trade Agreement, which seeks directly to prevent trade in illegally logged timber. However, they do represent innovations that are worth further consideration by those seeking to activate regional trade and investment accords to support sustainable development, in response to the global and regional challenge of climate change.

8. INVESTMENT IN SUSTAINABLE ENERGY

In recent RTAs signed by the EU, parties specifically highlight their intention to facilitate and promote investment in sustainable energy development. An example of this can be found in the Energy Chapter of the 2009 EU - Eastern and Southern Africa States Interim Agreement Establishing a Framework for an Economic Partnership Agreement, which commits to "the creation of a conducive environment for attracting investment in the sector."[127] In this RTA, the parties commit to cooperate and facilitate support for investment measures that will enhance production and distribution capacity in key aspects of the energy sector. The parties seek to expand and diversify the energy mix to reduce dependency on oil and included encouragement of investment and joint ventures for renewable sources, such as hydroelectricity, but they also referred directly to petroleum. They are, in effect, harnessing the economic rules of the trade and investment agreement to deepen and expand their collaboration in this sector, but offering the benefits to both clean energy, and fossil fuels.

Further, in certain RTAs, the parties are directly seeking to support enhanced trade and investment in the energy sector, using their trade agreements to stimulate these particular areas of economic activity in the interest of sustainable development and response to climate change. For instance, in the EU - Central America Association Agreement, there is a general commitment to facilitate trade and investment in environmental technologies and services which highlights renewable and energy-efficient products and services particularly, as part of the Trade and Sustainable Development Chapter.[128]

In addition, Article 275 of the EU-Colombia-Peru Trade Agreement takes a proactive approach, ensuring that economic laws and measures are harnessed specifically to support mitigation and adaptation to climate change.[129] In agreeing to these measures, the parties respond to strong concerns regarding climate change outlined in the SIA conducted in the context of the *travaux préparatoires* to the trade agreement.[130] The SIA outlined serious concerns regarding the vulnerability of the Andean region to climate change, in both the coastal and mountainous areas. Further, Andean States are largely dependent on hydroelectric power. The increases in weather events due to El Niño and La Niña have a large impact on the viability of hydroelectric power generation. The resulting RTA is concerned with removing trade and investment barriers to the development of goods, services and technologies that can assist in adaptation to and mitigation of climate change and promoting measures for energy efficiency and renewable energy, while minimizing TBTs. These provisions demonstrate that RTAs can provide opportunities for states to strengthen and coordinate their respective climate-change measures.

Also remarkable, although not in the RTA field, are the commitments stated in the Energy Charter Treaty preamble, which extends in the Annex III (Energy Charter Protocol on Energy Efficiency and Related Environmental Aspects),[131] including provisions for the formulation of strategies and policy aimed at improving energy efficiency and thereby reducing environmental impacts of the Energy Cycle; encouraging the implementation of new approaches and methods for financing energy efficiency and energy-related environmental protection investments, and encouraging commercial trade and cooperation in energy efficient and environmentally sound technologies, energy-related services and management practices.

The provisions highlighted above represent a delicate balance of economic and climate policy goals, rather than a comprehensive solution to the numerous challenges faced by parties due to climate change. It is clear, however, that in RTAs, there are now leading instances of parties electing to directly incorporate climate-change concerns into their joint trade and investment liberalisation agenda, in the interest of sustainable development.

9. CONCLUSIONS

From the survey of RTAs and discussions above, at least three encouraging innovations can be highlighted for countries interested in advancing an economic response to climate change and the promotion of cleaner, more sustainable energy technologies through their trade laws and policies.

The first is an expansion of the scope of exceptions in RTAs and the adoption of more specific exceptions that can be interpreted to prevent the RTA from unintentionally constraining a regulator or policymaker from adopting new economic instruments, for instance in the area of green procurement.

The second is the adoption of explicit provisions to encourage collaboration among parties to an RTA, in order to promote carbon markets, market-based instruments, such as the CDM or REDD+, and energy-efficiency and renewable energy technologies, and even to help address natural disasters. Backed by capacity building, technical assistance, scientific and educational exchanges, dialogue and other measures, these cooperative programmes offer an opportunity for the parties to work together to address climate change in the context of greater economic openness occasioned by the trade agreement. Such provisions are found, as discussed above, in the EU-CARIFORUM RTA, in particular at Article 138, in which the parties "agree to cooperate, including by facilitating support, in the following areas:… (a) projects related to environmentally friendly products, technologies, production processes, services, management and business methods, including those related to appropriate water-saving and Clean Development Mechanism applications; (b) projects related to energy efficiency and renewable energy…"

The third innovation is the adoption of commitments to specifically encourage trade and investment in the area of EGS, renewable energy and energy-efficient technologies, and other more sustainable economic activities that mitigate climate change. While only a few leading trade agreements actually contain clear commitments in this respect, and it is still too early to tell how their implementation will be realised, in these treaties the parties are deliberating encouragement of the growth of trade and investment toward more sustainable economic development. Certain RTAs, in particular, can be recognised in this respect. One of the leading examples uncovered and analysed in this brief survey was the EU-Colombia-Peru RTA, in particular at Article 275, which as noted above, states that the parties:

> agree to consider actions to contribute to achieving climate-change mitigation and adaptation objectives through their trade and investment policies, *inter alia* by: (a) facilitating the removal of trade and investment barriers to access to, innovation, development, and deployment of goods, services and technologies that can contribute to mitigation or adaptation, taking into account the circumstances of developing countries; (b) promoting measures for energy efficiency and renewable energy that respond to environmental and economic needs and minimise technical obstacles to trade.

Another agreement, also analysed in this study, is the EU-Central America RTA, which, at Article 288 on Trade Favouring Sustainable Development, states that parties shall "endeavour to:

> (a) consider those situations in which *the elimination or the reduction of obstacles to trade would benefit trade and sustainable development*, taking into account, in particular, the interactions between environmental measures and market access;
> (b) facilitate and promote trade and foreign direct investment in environmental technologies and services, renewable energy and energy-efficient products and services, including through addressing related non-tariff barriers…

A third leading example, as discussed in this paper, is the EU- South Korea FTA, which at Article 13.6 on Trade Favouring Sustainable Development agrees that:

> 2. The Parties shall strive to facilitate and promote trade and foreign direct investment in environmental goods and services, including environmental technologies, sustainable renewable energy, energy efficient products and services and eco-labelled goods, including through addressing related non-tariff barriers. The Parties shall strive to facilitate and promote trade in goods that contribute to sustainable development, including goods that are the subject of schemes such as fair and ethical trade and those involving corporate social responsibility and accountability.[132]

Finally, the most recent negotiations for an EU-Singapore RTA[133] will contain a novel discipline to reduce barriers to trade and investment in renewable energy generation, alongside liberalisation of environmental services and new rules on green tendering.

As discussed above, other honourable mentions are due to the US-Central America-Dominican Republic RTA, the US-Peru RTA, and the Canada-Chile RTA. However, a great deal depends on how the signals sent by the RTA commitments on climate change and low-carbon economic development, especially renewable energy, are greeted in commercial circles and by economic actors, as well as by civil society and government officials themselves. Depending on how reliably and promptly the innovative provisions are implemented, particularly where cooperation, capacity building and financing have been offered to support the economic cooperation, the RTA provisions will succeed or fail to achieve their low-carbon, sustainable development objectives.

Further policy analysis, backed by sound legal research, is needed in two important directions. First, implementation case studies are needed. There is a need to investigate specifically which measures can be linked to which initiatives to support low-carbon economic development and how these measures are being implemented on the ground in developing countries. Second, there is a need for further, detailed debate on how recently adopted provisions might match with the positions of diverse countries and negotiating groups in the global arena. To be worthy of consideration at the global level, measures found in specific RTAs should not be simply legally innovative; they should also be politically viable. A participatory and iterative analysis of the innovations highlighted above and reproduced in the Annexes to this paper, built on recent developments in international relations in the trade arena, could be of great benefit to practical adoption of the newest and most interesting ‘sustainable developments’ in regional trade law.

ENDNOTES

1 The mission of the CISDL is to promote legal education related to sustainable societies and the protection of ecosystems by advancing the understanding, development and implementation of international sustainable development law. See http://www.cisdl.org. This paper is based on the outcomes of a six-year legal research project of the CISDL. From 2006-2012, lead authors and legal researchers included Dr Marie-Claire Cordonier Segger (UK/Canada/Switzerland), Dr Markus W. Gehring (Germany), Dr Fabiano de Andrade Correa (Brasil), Me Patrick Reynaud (Canada), Ms Alexandra Harrington (US) and LicRodrigo Mella (Chile).

2 The Jean Monnet Action stimulates teaching, research and reflection on European integration in higher education institutions worldwide. It includes the creation of Jean Monnet Chairs, centres of excellence, modules, information and research activities as well as support for academic associations of professors and researchers in European integration.

3 The SSHRC is the federal research funding agency that promotes and supports postsecondary-based research and training in the humanities and social sciences. By focusing on developing talent, generating insights and forging connections across campuses and communities, SSHRC strategically supports world-leading initiatives that reflect a commitment to ensuring a better future for Canada and the world. See http:// http://www.sshrc-crsh.gc.ca

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5 See UNFCC, National Reports. Online. Available HTTP: <http://unfccc.int/national_reports/items/1408.php> .

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10 Decision on Trade and Environment, Apr. 15, 1994, Marrakesh Agreement Establishing the World Trade Organization, supra note 6.

11 M.Gehring and M.C. Cordonier Segger, supra note 6.

12 Items on the CTE's Work Programme, WTO.Online.Available <http://www.wto.org/english/tratop_e/envir_e/cte00_e.htm> .

13 See "NAMA Talks Probe Non-Tariff Barriers," ICTSD. Online. Available <http://ictsd.org/i/publications/11662/>; "Capping Unusually High Tariffs: The WTO Doha Round and 'Tariff Peaks,'" Information Note No. 9, 2009, ICTSD; David Laborde, "Looking for a meaningful Duty Free Quota Free Market Access Initiative in the Doha Development Agenda," ICTSD Issue Paper No. 4 (2008).

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15 Future We Want: Outcome Document, United Nations Sustainable Development Knowledge Platform at 62 - 69. Online.Available <http://sustainabledevelopment.un.org/futurewewant.html>.

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17 Ibid.

18 Supra note 9 at 141.

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31 US Bipartisan Trade Promotion Authority Act of 2002, 19 USC 3801 sect. 2012 (relating to "Trade Negotiating Objectives").

32 OECD (2007), supra note 26 at p. 33.

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43 Canada-Peru Free Trade Agreement.Online. Available: <http://www.sice.oas.org/TPD/AND_CAN/Final_Texts_CAN_PER_e/index_e.asp>; Canada-Chile Free Trade Agreement; US-Chile Free Trade Agreement, 42 ILM 1026.

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51 Canada-Peru Free Trade Agreement art.1702(2). Similar provisions are found in the Chile-Columbia FTA at art. 18.1.

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53 Interim Agreement Establishing a Framework for an Economic Partnership Agreement between the Eastern and Southern African States, on the one Part, and the European Community and its Member States, on the other Part art. 38(j)

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56 EU – Korea Free Trade Agreement art. 6.1(g).

57 EU-Colombia-Peru Trade Agreement art. 275.

58 Ibid.

59 See ICSID case Vattenfall A.B. et. al. v. Germany, ARB/09/06.

60 Ibid. at art.174(b).

61 Canada – Peru Free Trade Agreement ch. 6.

62 Legitimate objectives, in the TBT Appendix, are defined as: "Objectives such as safety, protection of human, animal or plant life or health, the environment or consumers (including matters relating to quality and identifiability of goods or services); or, sustainable development, considering, among other things, where appropriate, fundamental climatic, geographical, technological or infrastructural factors or scientific justification."

63 EU-CARIFORUM Economic Partnership Agreement art. 150.

64 Article 150 also states that: "The EC Party and the Signatory CARIFORUM States may require as part of the administrative requirements for a patent application concerning an invention which uses biological material as a necessary aspect of the invention, that the applicant identifies the sources of the biological material used by the applicant and described as part of the invention."

65 The parties state that: "In order to promote the sustainable management of forest resources, the Parties recognise the importance of having practices that, in accordance with domestic legislation and procedures, improve forest law enforcement and governance and promote trade in legal and sustainable forest products."

66 EU-Colombia-Peru Trade Agreement art. 274.

67 Montreal Protocol on Substances that Deplete the Ozone Layer (adopted 16 September 1987, entered into force 1 January 1989) 1522 UNTS 3.

68 OECD, T*rade Measures in Multilateral Environmental Agreements* (OECD, 1999); P.Birnie, A. Boyle and C.Redgwell, *International Law & the Environment* (OUP, 2009) p. 754.

69 "The Parties reaffirm their commitment to reaching the ultimate objective of the United Nations Framework Convention on Climate Change and its Kyoto Protocol. They commit to cooperating on the development of the future international climate change framework in accordance with the Bali Action Plan."

70 EU-Colombia-Peru Trade Agreement art. 270.

71 See NAFTA; Canada-Colombia Free Trade Agreement; Canada-Chile Free Trade Agreement; Canada-Peru Free Trade Agreement.

72 "2. The Parties recognize that it is inappropriate to encourage investment by relaxing domestic health, safety or environmental measures. Accordingly, a Party should not waive or otherwise derogate from, or offer to waive or otherwise derogate from, such measures as an encouragement for the establishment, acquisition, expansion or retention in its territory of an investment of an investor. If a Party considers that the other Party has offered such an encouragement, it may request consultations with the other Party and the two Parties shall consult with a view to avoiding any such encouragement."

73 Canada-Chile Free Trade Agreement sect.G-15.

74 At Article 18.3 on Enforcement of Environmental Laws, the RTA states:

1. (a) A Party shall not fail to effectively enforce its environmental laws, and its laws, regulations, and other measures to fulfill its obligations under the covered agreements, through a sustained or recurring course of action or inaction, in a manner affecting trade or investment between the Parties, after the date of entry into force of this Agreement.

2. The Parties recognize that it is inappropriate to encourage trade or investment by weakening or reducing the protections afforded in their respective environmental laws. Accordingly, a Party shall not waive or otherwise derogate from, or offer to waive or otherwise derogate from, such laws in a manner that weakens or reduces the protections afforded in those laws in a manner affecting trade or investment between the Parties.

75 See 2012 US Model Bilateral Investment Treaty. [http://www.state.gov/documents/organization/188371.pdf]

76 At Article 12 on 2012 US Model BIT states:

1. The Parties recognize that their respective environmental laws and policies, and multilateral environmental agreements to which they are both party, play an important role in protecting the environment.

2. The Parties recognize that it is inappropriate to encourage investment by weakening or reducing the protections afforded in domestic environmental laws. Accordingly, each Party shall ensure that it does not waive or otherwise derogate from or offer to waive or otherwise derogate from its environmental laws15 in a manner that weakens or reduces the protections afforded in those laws, or fail to effectively enforce those laws through a sustained or recurring course of action or inaction, as an encouragement for the establishment, acquisition, expansion, or retention of an investment in its territory.

3. The Parties recognize that each Party retains the right to exercise discretion with respect to regulatory, compliance, investigatory, and prosecutorial matters, and to make decisions regarding the allocation of resources to enforcement with respect to other environmental matters determined to have higher priorities. Accordingly, the Parties understand that a Party is in compliance with paragraph 2 where a course of action or inaction reflects a reasonable exercise of such discretion, or results from a bona fide decision regarding the allocation of resources.

77 See Andrew Green, "Climate Change, Regulatory Policy and the WTO," 8 J Int'l Economic L 143 (20050; Jan Bohanes, "Risk Regulation in WTO Law: A Procedure-Based Approach to the Precautionary Principle," 40 Columb. J Transnat'l L 323 (2001 – 2002); David Coenand Mark Thatcher, "The New Governance of Markets and Non-Majoritarian Regulators," 18 Governance 329 (2005).

78 See John H. Knox, "New Approaches to Compliance with International Environmental Law: The Submissions Procedure of the NAFTA Environment Commission," 28 Ecology LQ 1 (2001 – 2002); Jessica S. Wiltse, "Investor-State Dispute Mechanism in the Free Trade Agreement of the Americas: Lessons from NAFTA Chapter Eleven," 51 Buff. LR 1145 (2003).

79 See WTO *Special Study 4, Trade and the Environment*, WTO (2009); AseemPrakashand Matthew Potoski, "Racing to the Bottom? Trade, Environmental Governance and ISO 14001," 50 American J Political Science 350 (2006); Gareth Porter, "Trade Competition and Pollution

Standards: "Race to the Bottom" or "Stuck at the Bottom," 8 J Environment & Development 133 (1999).

80 EU - South Korea Free Trade Agreement art. 287.

81 Canada – Chile Free Trade Agreement art. A-04 (referencing the requirements of the Convention on International Trade in Endangered Species of Wild Fauna and Flora, theMontreal Protocol on Substances that Deplete the Ozone Layer, and theBasel Convention on the Control of Transboundary Movements of Hazardous Wastes and Their Disposal).

82 Canada – Costa Rica Free Trade Agreement art.I.4.

83 Canada-Colombia Free Trade Agreement annex 103.

84 Dominican Republic-Central America-United States Free Trade Agreement ch. 17.

85 "3. Co-operation shall in particular address: …(c) global issues such as climate change, depletion of the ozone layer, desertification, deforestation, conservation of biodiversity and biosafety; (d) in this context, co-operation shall seek to facilitate joint initiatives in the area of climate change mitigation and adaptation to its adverse effects, including the strengthening of carbon market mechanisms."

86 Ibid.; EU-Columbia-Peru Agreement art. 271 (relating to trade favouring sustainable development).

87 European Commission Memo, Facts and Figures: EU trade deal with Singapore (16 Dec. 2012).

88 See D. Ockwell and A. Mallet *Low-Carbon Technology Transfer* (Routledge 2012), T. Brewer, *Climate Change Technology Transfer: A new paradigm and policy agenda* (Climate Policy Article 2011)

89 Agreement on the Environment between Canada and the Republic of Peru preamble.

90 EU-Central America Association Agreement Article.50 (Cooperation on Environment), 65.

91 CARIFORUM-EU Economic Partnership Agreement art. 83.26.

92 Ibid. at art.138 "2. Subject to the provisions of Article 7 and 134, the Parties agree to cooperate, including by facilitating support, in the following areas:… (a) projects related to environmentally-friendly products, technologies, production processes, services, management and business methods, including those related to appropriate water-saving and Clean Development Mechanism applications; (b) projects related to energy efficiency and renewable energy."

93 EU-South Africa Trade, Development and Cooperation Agreement (TDCA) art. 57.

94 EU-ESA EPA art. 47.

95 EU - South Korea Free Trade Agreement art. 13.6.

96 Mexico – EU Free Trade Agreement art 23,

97 Chile-Columbia Free Trade Agreement art.18.3(4).

98 Guatemala – Taiwan Free Trade Agreement art. 20.13.

99 "1. With a view to achieving sustainable development and in order to help maximise any positive and prevent any negative environmental impacts resulting from this Agreement,

the Parties recognise the importance of fostering forms of innovation that benefit the environment in all sectors of their economy. Such forms of eco-innovation include energy efficiency and renewable sources of energy. 2. Subject to the provisions of Article 7 and 134, the Parties agree to cooperate, including by facilitating support, in the following areas:… (c) promotion of eco-innovation networks and clusters, including through public-private partnerships..."

100 Free Trade Agreement between the Republic of China (Taiwan) and the Republic of Nicaragua art. 19.04.

101 Stabilisation and Association Agreement between the European Communities and their Member States, of the one Part, and the Republic of Albania, of the other Part, arts.86, 106, 108 (2006).

102 EC, EU and Singapore Agree a Landmark Trade Deal (Dec. 2012). Online. Available: <http://ec.europa.eu/trade/creating-opportunities/bilateral-relations/countries/singapore/>.

103 EU-Central America Association Agreement art. 51.

104 A.Lowenfeld, *International Economic Law* (Oxford 2011)

105 M.Gehringamd M.C. Cordonier Segger, eds, *Sustainable Development in World Trade Law* (Kluwer, 2005); M.C. Cordonier Segger, M.Gehringand A.Newcombe, eds, *Sustainable Development in World Investment Law* (Kluwer, 2010)

106 See "Trade Preferences for Environmentally Friendly Goods and Services." ICTSD Working Paper (2011)

107 UNEP, ITC and ICTSD, *Trade and Environment Briefings: Environmental Services; ICTSD Programme on Global Economic Policy and Institutions* (2012).,

108 Ibid.

109 Doha WTO Ministerial 2001: Ministerial Declaration, WT/MIN(01)/DEC/1 (2001).

110 See "Opening Markets for Environmental Goods and Services," OECD Policy Brief (2005).

111 See "Fostering Low Carbon Growth: The Case for a Sustainable Energy Trade Agreement"ICTSDGlobal Platform on Climate Change, Trade and Sustainable Energy(2012)

112 Canada-Peru Side Agreement on the Environment art. 2.6.

113 US–Morocco Free Trade Agreement art.17.3(7) (relating to Environmental Goods and Services).

114 CARIFORUM- EU Economic Partnership Agreement art. 83.26.

115 EU-South Korea Free Trade Agreement art. 13.6.

116 Trade Agreement between the European Union and its Member States, of the one Part, and Colombia and Peru, on the other Part tit.IX.

117 EC, Facts and Figures: EU Trade Agreement with Singapore (Dec. 2012). Online. Available: <http://europa.eu/rapid/press-release_MEMO-12-993_en.htm>.

118 S. Mason-Case et al., *Lessons Learned in Legal Preparedness for REDD+* (IDLO, 2012).

119 EU-Central America Agreement art. 289.

120 See US-Chile Free Trade Agreement, annex 19.3; US-Morocco Free Trade Agreement ch. 3.

121 Mexico-Japan Free Trade Agreement art. 145.

122 See Jennifer Ellis, "The Effects of Fossil-Fuel Subsidy Reform: A Review of Modelling and Empirical Studies," Global Studies Initiative of the International Institute for Sustainable Development (2010); J.M. Burniaxand J. Chateau, *Mitigation Potential and Trade Effects for Removing Fossil Fuel Subsidies* (OECD).

123 Art. 50: "4. Co-operation may involve measures such as: (a) promoting policy dialogue and exchange of best environmental practices, experiences, and capacity building, including institutional strengthening; (b) transfer and use of sustainable technology and know-how, including *creation of incentives and mechanisms for innovation and environmental protection*;…"

124 Information from http://www.sice.oas.org/tpd/slv_twn/slv_twn_e.asp. "1. The objective of the cooperation between the Parties will be the development of their corresponding energy sectors, focusing on the promotion of technology transfer and sectorial regulation.2. The cooperation in this field will be carried out, mainly, by means of exchanges of information, training of human resources, technology transfers, and joint projects for technological development and infrastructure projects agreed upon by the Parties; as well as the design of more efficient energy generation processes, the rational use of energy, support for the use of alternative and renewable energies that protect the environment, and the promotion of recycling projects and waste treatment for energy use.3. Grant cooperation to the institutions in charge of energy issues and formulation of energy policies."

125 EU-Colombia-Peru Free Trade Agreement art. 278.

126 US-Singapore Free Trade Agreement art. 18.9.

127 "1. The Parties recognise the importance of cooperation in the energy sector as a vehicle for *supporting the ESA economies' competitiveness at the regional and global levels*. The objectives in this area are to: (a) improve the access of ESA States to modern, efficient, reliable, diversified and sustainable and renewable sources of clean energy at competitive prices; (b) enhance the production, distribution and management capacity of energy nationally and regionally; and (c) promote regional energy cooperation. Areas of cooperation 2. Subject to the provisions of Article 36, the Parties agree to cooperate, including by facilitating support, in the following areas: (a) enhance the production and distribution capacity of existing energy sources, in particular hydro, petroleum and biomass; (b) expand and diversify the energy mix to include other potential sources of energy that are socially and environmentally acceptable and that reduce dependency on oil; (c) support the development of energy infrastructure, including for rural areas; (d) support the development of appropriate energy regulatory and policy reforms, including commercialisation and privatisation;…(g) support the creation of a conducive environment for attracting investment in the sector;… (i) encourage EU-ESA partnerships, linkages and joint ventures between economic operators."

128 Article 288 on Trade Favouring Sustainable Development: "2. The Parties shall endeavour to: (a) consider those situations in which the elimination or the reduction of obstacles to trade would benefit trade and sustainable development, taking into account, in particular, the interactions between environmental measures and market access; (b) facilitate and promote trade and foreign direct investment in environmental technologies and services, renewableenergy and energy-efficient products and services, including through addressing related non-tariff barriers."

129 Article 275 notably provides that: "... 5. The Parties agree to consider actions to contribute to achieving climate change mitigation and adaptation objectives through their trade and investment policies, inter alia by: (a) facilitating the removal of trade and investment barriers to access to, innovation, development, and deployment of goods, services and technologies that can contribute to mitigation or adaptation, taking into account the circumstances of developing countries; (b) promoting measures for energy efficiency and renewable energy that respond to environmental and economic needs and minimise technical obstacles to trade."

130 EU-Andean Trade Sustainability Impact Assessment, Final Report (October 2009), at 41.

131 See Energy Charter Treaty and Related Documents. [http://www.encharter.org/fileadmin/user_upload/document/EN.pdf]

132 EU – South Korea Free Trade Agreement art. 13.6.

133 European Commission Memo, Facts and Figures: EU trade deal with Singapore (16 Dec. 2012).

ANNEX

Scoping survey regional trade agreements innovations related to climate change and energy trade

	RTA Signatories & Link	Date of Signature	Indicative scoping of provisions worth analysis
1	Andean - MERCOSUR	18 October 2004	
2	Bolivia - MERCOSUR	17 December 1996	
3	Bolivia - Mexico	17 May 2010	
4	Canada - Chile	05 December 1996	SD in Env Side Agreemt w Preamble; Art 1; Art 2.3 consider DPGs; Art 10 MBIs,
5	Canada - Costa Rica	23 April 2001	SD in Env Side Agreemt w Preamble; Art 1; Art 8 Cooperation in Annex 1; Art 17 other MEAs
6	Canada - EFTA	26 January 2008	
7	Canada - Peru	29 May 2008	810 Invest encourage CSR; - ESA Art 2.6 encourage trade in EGS; ESA Art 5 CBD Sust use of biodiv, ESA Art 6 CSR; ESA Annex 1 on EGS & clean tech; - Labour SA, no SD
8	Canada - Mexico-UnitedStates (NAFTA)	17 December 1992	ESA, Art 1(b), Art 10.2; CEC, Factual Review & JPAC; Current CEC Agenda on Biodiv& Low-Carbon Economy
9	CARICOM - Costa Rica	09 March 2004	
10	CARICOM - Dominican Republic	22 August 1998	Art IX econ coop in sectors
11	CARIFORUM - European Union	15 October 2008	Ch 4 Services Art 83.26 Enviro Services; Art 43 Cooperation 2(c); Art 136(e) sci& tech SD; Art 138 eco-innovation & renewable energy; Art 150 IPRs Sust use of biodiv, genetic resources, TK; Ch 4 Enviro Art 183 – 190 SD Context
12	CA-Chile	18 October 1999	
13	CA-Dominican	16 April 1998	
14	CA-Dominican - United States	05 August 2004	
15	CA - Panama	06 March 2002	
16	Chile - Australia	30 July 2008	Art 18.2 Cooperation for sectors development, labour, enviro
17	Chile - China	18 November 2005	
18	Chile - Colombia	27 November 2006	Ch 18 Enviro, 18.1 Objective of SD; 18.3 (4) Cooperation on green markets; Ch 19 Cooperation 19.5 Economic energy dev

19	Chile - EFTA	26 June 2003	
20	Chile - EU	18 November 2002	Ch 18 Enviro, 18.1 Objective of SD; 18.3 (4) Cooperation on green markets; Ch 19 Cooperation 19.5 Economic energy dev
21	Chile - Japan	27 March 2007	
22	Chile - Korea	15 February 2003	
23	Chile - MERCOSUR	25 June 1996	
24	Chile - Mexico	17 April 1998	
25	Chile - New Zealand, Singapore and Brunei Darussalam (P4)	18 July 2005	
26	Chile - Peru	22 August 2006	
27	Chile - Panama	27 June 2006	
28	Chile - United States	06 June 2003	Enviro Chapter w cooperation mechs + env not NR law support; 19.10 CSR; Enviro Side Agreement Annex 19.3 clean fuels, agri + mining; Art 19.10 CSR Promotion
29	Colombia – Mexico(G3 after Venezuela'swithdrawal)	13 June 1994	
30	Costa Rica - Mexico	05 April 1994	
31	Costa Rica-China Free Trade Agreement		
32	El Salvador - Taiwan	07 May 2007	Ch 17 Cooperation, Art 17.01.2 Objectives (all cooperation, env/NR); 17.06 SMEs; 17.09 SD of Energy; 17.11 Agri, Forestry, Fish, NRs,
33	EU-Colombia-PeruFTA	March 2011	Title IX Trade & SD; Art 267 SD Cooperation; Art 268 Right to regulate & levels of protection; Art 269 Labour Agreements, Art 270 MEAs; Art 280 - 285 Not fail to enforce Monitoring (Board on T&SD, Panel, CivSoc Forum); Art 324 Trade Capacity Building (SMEs, Fair Trade) Art 271 Trade favour SD; Art 272 Biodiversity; Art 273 Trade in Forest Products; Art 274 Trade in fish products; Art 275 Climate change (renewables, EGS); Art 279 SIAs; Art 286 Trade & SD Cooperation (REDD, UNFCCC, Biodiv, Forest Certific, Fisheries, CSR)
34	EU-South Africa TDCA	01 January 2000	Art 83 S&T Cooperation; Art 84 Enviro Cooperation; Art 53 SMEs; Art 57 Energy (renewables, local); Art 61 Agriculture (Sustagri);

35	EU ESA Interim EPA	August 2009	Art 31 Objective of SD, Art 32.2.1 precaution; Art 36 Econ &Dev Cooperation, 36.1 Objectives (sustained growth); Art 38(j) (mainstream enviro, trade, dev); Art 40 Investment Art 40.2 (invest in SMEs); Art 41 Industrial dev (SD econ, enviro, soc); Art 49 NR &Enviro (SD, biodiv, climate, cooperation in MEA implementation); Art 50 Water (SD); Art 51 Enviro (MEAs +) Art 52 (Financing); Annex IV Development Matrix (SD cooperation)); Art 46 Transport (susttranport); Art 47 Energy (clean + renewable); Annex IV Development Matrix (T+I enhance)
36	EU-SADC Interim EPA	June 2009	
37	EU-Pacific EPA	July 2007 (PNG) 11 December 2009 (Fiji)	
38	EU - South Korea FTA	6 October 2010	Ch 13 Trade & SD; Art 13.1 SD Cooperation; Art 13.3 Right to regulate & levels of protection; Art 13.10 Annex Trade & SD Cooperation; Art 13.5 MEAs; 13.6 Uphold laws; Art 13.12 – 13.16 Not fail to enforce Monitoring (Board on T&SD, Panel, CivSoc Forum); Art 324 Trade Capacity Building (SMEs, Fair Trade) Annex 13 T&SD; 2nd Annex EnviroRegs, Urban Planning, Zoning; Art 13.6 Trade & SD Cooperation (enviro tech, renewables, eco-labels, CSR, ILO Decent Work); Art 13.10 SIAs
39	EU-Central America Association Agreement.	22 March 2011	Part II Political Dialogue on Art 20 Env + SD; Art 24(d) Objective econ growth for SD; Title IV social dev + social cohesion Art 41.2(b) T&I w SD; Art 45 Indigenous ppls; Title 5 Enviro, Nat Disasters & Climate, Art 50 Enviro, Art 51 DRR; Art 287 MEAs; Title 6 Economic & Trade Development; Art 61 Organic Goods (SD of organic agriculture); Art 64 Trade & SD (SD of trade); Art 65 Energy (SD of Renewables); Art 288 Trade Favouring SD(enhance trade in SD fish, forests, etc); Art 293 SIAs
40	Guatemala - Taiwan	22 September 2005	20.02 Cooperation (econ+env); 20.12 Env& NR, 20.13 Renewable Energy
41	MERCOSUR - Peru	30 November 2005	
42	Mexico - EFTA	27 November 2000	
43	Mexico - EU	8 December 1997	Art 21 Agriculture (harmonize health+env stands), Art 22 Mining (new tech), Art 23 Energy (renewables)

44	Mexico - Israel	10 April 2000	
45	Mexico - Japan	17 September 2004	Art 145 Agriculture (SD of agri), Art 147 Environment (Enviro Goods Services, CDM, invest)
46	Mexico - Nicaragua	18 December 1997	
47	Mexico – Honduras, El Salvador, Guatemala (NorthernTriangle)	29 June 2000	
48	Mexico - Uruguay	15 November 2003	
49	Panama - Singapore	01 March 2006	Annex 16.2 Areas for Cooperation SMEs, Tourism, ICT+E-Commerce, Enviro Services
50	Panama - Taiwan	21 August 2003	
51	Peru - Singapore	29 May 2008	
52	Peru - United States	12 April 2006	Ch 18 Enviro Cooperation Objectives (optimal use of resources=SD), 18.1 enviro laws, 18.2 MEAs, 18.3 not fail enforce env laws, 18.4-18.10 Institutions-Enforcement-Capacity; Annex 14.3.4 Forest Sector Governance
53	United States - Australia	18 May 2004	Ch 19 Enviro; Enviro Cooperation 19.1-2 Enforce domestic laws w high standards; 19.8 Relationship to MEAs (support); United States–Australia Joint Statement on Environmental Cooperation
54	United States - Bahrain	14 September 2004	Ch 16 Enviro Cooperation 16.1-2 Enforce domestic laws w high standards, 16.4(1) b trading permits; 16.9 Relationship to MEAs (support); Memo of Understanding on Enviro
55	United States - Jordan	24 October 2000	
56	United States - Morocco	15 June 2004	Ch 17 Enviro Cooperation 17.1-2 Enforce domestic laws w high standards, Joint Statement on Enviro Cooperation, 17.8 Relationship to MEAs (support); 17.3(7) Enviro Goods + Services liberalisation
57	United States - Oman	19 January 2006	Ch 17 Enviro Cooperation 17.1-2 Enforce domestic laws w high standards, Memo of Understanding for Enviro Cooperation, 17.9 Relationship to MEAs (support); Ch 17 Enviro Cooperation, 17.4(1)b emission trading incentives
58	United States - Singapore	06 May 2003	Ch 18 Enviro Cooperation, 18.19 CSR for SD

Source: Constructed by CISDL legal researchers from 2007-2012, using treaty texts provided on McGill University Faculty of Law Regional Trade Agreements, European Commission, Organization of American States and other databases.

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