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Climate and Energy Provisions in Trade Agreements with Relevance to the Commonwealth

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Abstract

This paper considers domestic climate laws among Commonwealth countries, and climate change language across an array of trade and investment agreements featuring Commonwealth parties, in order to identify key trends and useful mechanisms for future agreement negotiations, particularly regarding climate-vulnerable countries and LDCs.

Trends identified among Commonwealth countries' domestic legislation include climate change action plans; the imposition of climate change-related duties upon government and other decision-makers; innovative approaches to enhancing carbon sinks and protecting forests; the integration of climate change and renewable energy into educational curriculums; disaster management legislation; international cooperation and assistance provisions; and carbon credit regulations. Legislated climate-related financial mechanisms included renewable energy funds, tax benefits for renewable energy projects, and carbon pricing and investment vehicles. Climate-related features of free trade agreements and bilateral investment treaties involving Commonwealth countries include commitments to improving environmental protection; non-regression clauses; cooperation; dispute settlement mechanisms; removal of tariff and non-tariff barriers; voluntary market mechanisms; corporate social responsibility commitments; and disaster response provisions.

These trends demonstrate that Commonwealth countries have displayed innovation in their domestic climate legislation and trade and investment agreements, and that there is much potential for further development, particularly with respect to enhancing the resilience of climate-vulnerable states.

JEL Classifications: F10, K32, Q54
Keywords: domestic legislation, climate, Commonwealth, trade agreements, investment agreements

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Abbreviations and Acronyms

BIT	bilateral investment treaty
BLEU	Belgium-Luxembourg Economic Union
CARIFORUM	Caribbean Forum
CDM	Clean Development Mechanism
CETA	Comprehensive Economic and Trade Agreement (EU–Canada)
CSR	corporate social responsibility
EPA	economic partnership agreement
ETS	emissions trading scheme
FTA	free trade agreement
GCF	Green Climate Fund
GEF	Global Environment Facility
GHG	greenhouse gases
INDC	intended nationally determined contribution
LDCs	least developed countries
LSE	London School of Economics
NDC	nationally determined contribution
REDD	Reducing emissions from deforestation and forest degradation
REDD+	Reducing emissions from deforestation and forest degradation, plus the sustainable management of forests, and the conservation and enhancement of forest carbon stocks
SDGs	Sustainable Development Goals
TPA	trade promotion agreement
TPP	Trans-Pacific Partnership
UNFCC	United Nations Framework Convention on Climate Change
WTO	World Trade Organization

1. Introduction

International trade of goods and services has become, on the one hand, an important determinant of natural resource depletion and environmental degradation. On the other hand, it is a significant opportunity for financing and development to help countries achieve their Sustainable Development Goals (SDGs). In recent years, the world has seen a proliferation of trade and investment agreements that reflect a growing awareness of climate change and sustainable development concerns. Recent surveys document over 140 new free trade agreements (FTAs) that explicitly commit to sustainable development, including the EU–CARIFORUM economic partnership agreement (EPA), US–PERU trade promotion agreement (TPA), the Trans-Pacific Partnership (TPP) and the Comprehensive Economic and Trade Agreement (CETA). In these agreements, the Parties display innovation and experimentation in moving towards their objectives. Such FTAs could, if drafted and implemented carefully, play a pivotal role in achieving Article 2.1(c) of the 2015 UNFCC Paris Agreement, which encourages members to make finance flows consistent with a pathway towards low greenhouse gas emissions and climate-resilient development.

Potential models for the relationship, and its implications for global climate policy, include existing climate change collaborations between Commonwealth members. Each of these countries also has strong trading relationships and links to climate change policies, rules, and emissions trading systems. Indeed, nearly all Commonwealth countries are WTO members and all have signed the Paris Agreement. A plethora of energy and climate-related rules apply in these relationships, currently not as part of an overall trade agreement but as standalone co-operation agreements or as part of Paris Agreement commitments.

New trade agreements are negotiated around the world every day. The dynamic and evolving trade relationship between and by Commonwealth countries provides an opportunity to ensure that trade does not contribute to climate change or frustrate sustainable development. Including a climate or sustainable development chapter (or of detailed provisions for co-operation within a sustainable development chapter) in new agreements will help to ensure that the Commonwealth countries continue to meet their domestic commitments to climate change and contribute towards the achievement of the SDGs.

In the context of international law, trade within the Commonwealth provides a unique opportunity to harmonise economic growth, environmental sustainability and social objectives, and set the gold standard for climate change provisions in future global or regional trade agreements.

2. Methodology

The findings and recommendations in this paper are based on data collected on domestic climate laws in Commonwealth countries and climate change language across an array of trade and investment agreements involving at least one Commonwealth party (see Annexes 1 and 2, available upon request from the series editor).

Climate-related domestic legislation was sourced using the LSE Climate Law Database, and analysed to identify external elements. To identify climate and energy trends across a broad array of trade and investment agreements, the RTA Exchange database was used to identify trade agreements including references to climate change, renewable energy, disaster and sustainable development goals. The International Investment Agreements Navigator was also used to identify BITs and treaties with investment provisions that included references to sustainable development and environment in their preambles; not lowering environmental standards; and mentions of corporate social responsibility in the agreement body.

3. Key trends in Commonwealth climate legislation with a focus on their external dimensions

All Commonwealth countries have ratified the Paris Agreement, and the vast majority have submitted their first NDC.[1] The power of Commonwealth countries to drive the global solutions needed to achieve Paris Agreement objectives, including art 2.1(c), is manifested by the fact that Commonwealth states represent a third of the world's population across every continent and ocean, and account for over a quarter of the parties to the UNFCCC. The Commonwealth's commitment to climate action, and the recognition that many Commonwealth member states – as small island states, low-lying coastal states and least developed countries (LDCs) – face the greatest challenges, was manifest in the 2009 Commonwealth Climate Change Declaration. The Commonwealth's support for the Paris Agreement was emphasised in the 2015 Commonwealth Leaders' Statement on Climate Action, wherein Commonwealth leaders declared that each NDC registered would be at least as ambitious as their corresponding intended nationally determined contributions (INDCs). Leaders also declared their commitment to encouraging public and private finance to fund adaptation and mitigation, and to mobilising public finance from developed countries to help developing countries, while in particular, encouraging the mobilisation of resources for the newly established Commonwealth Climate Finance Access Hub.[2] Building on this, in 2018, Commonwealth Heads of Government declared international trade and investment to be an 'engine for generating inclusive and participative economic growth and a means to deliver the 2030 Agenda for Sustainable Development' (The Commonwealth, 2018).

In light of this strong commitment to implementing the Paris Agreement, it follows that Commonwealth countries are exhibiting some innovative approaches to climate change legislation. A survey of a number of Commonwealth states' climate-related legislation reveals the following trends and innovations:

3.1 General trends in climate legislation

The vast majority of countries have legislation – particularly energy legislation – that directly addresses climate change, either in specific legislation or integrated into other sectoral laws (Nachmany et al., 2017).

3.2 Climate change action plans

The domestic legislation of many states provides for the formulation of national climate change action plans.[3] Malta's Climate Action Act 2015 requires government to develop a national low-carbon development strategy to monitor UNFCCC obligations and to meet EU standards and sinks across all sectors, and a national adaptation strategy focused on preventing and reducing the adverse effects of climate change, with both to be updated at least every four years.[4] In Kenya, the National Climate Change Council was established to approve five-year national climate change action plans. Formulation of these plans is to be informed by a broad range of factors, including scientific knowledge, economic and fiscal circumstances, international law, indigenous knowledge, social circumstances, and impacts on biodiversity and ecosystem services, and is to allow for public and stakeholder engagement.[5] The legislation sets out the required contents of the plan in detail, including a requirement to set out actions for mainstreaming climate change responses into sector functions.[6]

3.3 Climate change duties and integrated decision-making

A number of domestic Acts in Commonwealth states impose climate change-related obligations on government and other decision-makers. By way of example, New Zealand's Energy Efficiency and Conservation Act 2000 requires decision-makers exercising responsibilities, powers, or functions under the Act to consider a number of 'sustainability principles', including the need to maintain and enhance the quality of the environment, the needs of future generations, and social and cultural wellbeing of people and communities.[7] New Zealand also requires that all persons exercising functions and powers under its Resource Management Act 2004 – which relates to managing the use, development and protection of natural and

physical resources – have particular regard to the effects of climate change and the benefits of renewable energy.[8] Malta's Climate Action Act 2015 goes further, imposing a duty upon everyone to protect the climate,[9] and a duty upon the government to protect the climate for present and future generations[10] and to ensure that climate change actions contribute to sustainable development. Kenya's legislation goes further still, imposing a duty on government public entities to integrate the national action plan into sectoral strategies and to designate an adequately resourced unit for this purpose, regularly review performance of this integration and report annually on performance.[11] Climate change duties may also be imposed on private entities.[12] Unsatisfactory performance of climate change duties by public and private entities may be subject to investigation. Kenya's legislation further promotes integrated decision-making by requiring the National Environmental Management Authority to integrate a climate change risk and vulnerability assessment into every assessment that it undertakes.[13]

Beyond allowing for climate change obligations to be imposed on public and private sector entities, and for performance of these duties to be subject to monitoring and investigation, Kenya's legislation also allows individuals to take legal action by alleging that a person has acted in a manner that has or is likely to adversely affect efforts toward climate change adaptation and mitigation.[14]

3.4 Carbon sinks

Commonwealth states have shown a number of innovative approaches to enhancing carbon sinks and protecting forests. In Antigua and Barbuda, the government has the power to designate areas as carbon sinks. In the Bahamas, the government has established a Forestry Unit to regulate exploitation and other forestry activities (including on private lands), and to declare and manage forest reserves.[15] This includes the development of five-year Forest Management Plans, which must include the objectives of carbon sequestration and reforestation. In Zambia, permits are required to trade in forest produce, while in New Zealand, legislation prohibits indigenous timber felling and export. In Vanuatu, legislation establishes carbon sequestration rights, which decouple carbon rights from land rights.

3.5 Education, information and reporting

Integration of climate change and renewable energy into the educational curriculum has been observed in the legislation of a number of states,[16] as well as the provision of public participation in the formulation of climate change law and policies.[17] Reporting requirements on energy efficiency are common, which is unsurprising given the importance of transparency for Paris Agreement reporting objectives. The Bahamas requires public suppliers to submit their renewable energy objectives to a designated authority. Australia has a specific Act that provides a national framework for reporting and disseminating information about greenhouse gas emissions and energy consumption of corporations, with one of the purposes of the Act being to ensure the fulfilment of international reporting requirements.[18] Australia also has a separate Act that requires disclosures relating to the energy efficiency of buildings.[19] In Kenya, building owners who fail to conserve energy or to audit and analyse the energy consumption of their buildings are liable to conviction.[20] A number of states have established specific bodies responsible for monitoring national compliance with UNFCCC (and SDG) obligations.[21]

3.6 Disaster management legislation

As mentioned above, a significant number of Commonwealth member states are small island states, low-lying coastal states and least developed countries (LDCs), and are thus most vulnerable to the effects of climate change. It follows that a significant number of Commonwealth states have disaster management legislation with specific climate change provisions, with a view towards adaptation.[22] Bangladesh has established a disaster management system and an institute to research links between climate change and disasters. Kenya requires authorities to identify disaster risk reduction strategies on an annual basis, and for drought management authorities to co-ordinate and implement projects that strengthen climate change resilience. In Seychelles, all government institutions and private organisations must formulate disaster risk management plans, and in doing so, co-operate with international organisations and governments. Pakistan requires plans to be formulated at all levels of government. As discussed further below, disaster management is a key area where trade and investment agreements may serve to strengthen LDC's climate resilience.

4. Financial mechanisms relating to climate action

4.1 Renewable energy funds

Legislation establishing funds for the purpose of financing renewable energy research and development is a common feature of Commonwealth climate legislation.[23] National funds are also established to assist reforestation, conservation and education activities;[24] to redress adverse impacts of climate change;[25] as well as to provide grants for climate change research and innovation, business loans to develop innovative actions, and to provide technical assistance to lower levels of government.[26] Some countries explicitly allow for their funds to receive international donations or aid funding for particular projects.[27]

4.2 Financial incentives and tax exemptions for renewable energy projects

Many states legislate feed-in tariff schemes for the purchase of renewable energy.[28] In addition, several states legislate tax exemptions as a means to incentivise use of renewable energy resources.[29] Examples include providing income tax exemptions for the sale of certified emissions reductions derived from CDM projects;[30] exempting electricity projects using renewable sources from import, corporate and retail tax; and exempting renewable energy equipment from import duties.[31] Innovatively, Barbados offers income tax deductions for renewable energy production and use, and for training in renewable energy and energy efficient systems for unemployed young people.

4.3 Carbon pricing

Carbon pricing initiatives are gaining momentum globally, with 11 new initiatives implemented in 2018 and 2019, bringing the total number of initiatives (emissions trading schemes and carbon taxes) implemented and scheduled to be implemented to 57 (World Bank, 2019, p. 9). These initiatives cover approximately 20 per cent of global greenhouse gas (GHG) emissions (Ibid.). The increased rate of adoption of these initiatives demonstrates an active international commitment to achieving the emission reduction goals set out in the Paris Agreement (Gehring and Phillips, 2019).[32] Canada, Singapore and South Africa are among the Commonwealth nations that have recently introduced carbon taxes.[33] Canada's carbon tax, which was introduced in January 2019, applies to any province or territory of Canada that requests the price, or to any province or territory that has not already implemented a compliant carbon pricing system.[34] This legislation thus encourages provincial-level carbon pricing initiatives. Some states also have carbon taxes for motor vehicles, depending on their carbon dioxide emissions.[35] Emissions trading schemes operate in Commonwealth countries that are part of the EU, as well as in New Zealand. Expanding carbon pricing and emissions trading schemes among Commonwealth states represents an opportunity to enhance achievement of NDCs: as the World Bank's 2019 report suggests (World Bank Group, 2019), coverage and price levels of international carbon pricing initiatives remain insufficient for meeting Paris Agreement objectives.

4.4 Investment

Australia's Clean Energy Finance Corporation has a mandate to invest, directly and indirectly, in clean energy technologies.[36] In particular, the Corporation is empowered to invest in Australian (or mainly Australian) businesses or projects that develop or commercialise energy efficient, low-emission or renewable energy technologies, and in businesses that supply goods or services needed for those purposes. The corporation is able to make investments itself or through subsidiaries or other investment vehicles.

5. External features of climate legislation

5.1 International co-operation

A common feature of Commonwealth climate legislation is the reference to international co-operation regarding issues such as disaster response and renewable technology investment. Some states refer to a 'principle' of

co-operation, requiring government officials to promote co-operation with other governments and international organisations concerned with environmental protection,[37] or require government to negotiate multilateral environmental agreements in a way that integrates Lillendaal Declaration principles on climate change adaptation.[38] More specific provisions require designated authorities to co-operate or collaborate with international institutions and foreign governments to promote, invest in and develop alternative and renewable energies;[39] for example, Malaysia's Sustainable Energy Development Authority Act 2011, which established its Sustainable Energy Development Authority.[40] This link between co-operation and investment should be encouraged. With respect to disaster management, some climate-vulnerable Commonwealth states require government and even private organisations to co-operate internationally to respond to disasters and reduce climate risk,[41] with Seychelles' Disaster Risk Management Act containing extensive provisions governing such international co-operation.[42]

5.2 International assistance

Obtaining international financial assistance for the purpose of climate change adaptation and mitigation is particularly important for small island states and LDCs. Legislation in one state requires government bodies to participate in international conventions and forums, with a view to obtaining the fullest possible assistance to address climate change and undertake adaptation initiatives.[43] Another charges an authority with preparing suitable mitigation and adaptation projects to submit to local and international institutions for funding (for example, from the Clean Development Mechanism (CDM), Global Environment Facility (GEF), Green Climate Fund (GCF) and Adaptation Fund).[44] Seychelles' Energy Act requires the Minister responsible for Environment to establish procedural requirements for CDM projects, prescribe criteria for eligible projects, develop a CDM policy, review proposed projects, and monitor and implement the projects located within Seychelles.[45] Unusually, Seychelles has legislation allowing for debt swap transactions, enabling the country to swap part of its sovereign debt in return for undertaking conservation and climate adaptation activities.[46] This kind of innovative legislation may be useful for other Commonwealth states in debt situations.

5.3 Carbon credits

Several Commonwealth countries' domestic legislation provides for regulation of carbon credit schemes.[47] Some countries also promote carbon credit usage by requiring government agencies to encourage and assist project developers to apply for carbon credits for energy efficiency projects using a CDM.[48] Samoa's forestry management legislation aims to manage forest resources in a manner that maximises conservation and financial benefits from carbon credit trading and related opportunities.[49] It recognises the part that forest resources can play in implementing carbon trading through carbon credits and offsets, and allows for regulations to be made for this purpose, including entering agreements with any party to participate in such schemes and share the benefits.[50] With respect to REDD and REDD+, few Acts specifically mention these initiatives; however, one does charge a government agency with preparing projects for REDD+ funding,[51] and another empowers a national body to monitor REDD and REDD+ activities.

The general absence of investment and trade provisions in the domestic legislation of Commonwealth nations presents an opportunity for increased ambition.

6. Analysis of key trends in climate/energy provisions of Commonwealth FTAs/BITs

Trade and investment agreements are increasingly integrating environmental language into their provisions. Some agreements integrate climate issues throughout their text,[52] and distinct chapters on trade and the environment are a common feature of modern FTAs.[53] Promisingly, some agreements have even progressed to include chapters on 'climate action' (Annis, 2015). Further, a number of BITs and treaties with investment provisions involving

Commonwealth states include commitments to sustainable development and environmental aspects in their preambles. The section below discusses some key features observed in recent trade and investment agreements that include Commonwealth country parties, with a view to identifying useful mechanisms for future agreement negotiations, particularly regarding climate-vulnerable countries and LDCs.

6.1 Commitments to improving environmental protection

Many FTAs involving Commonwealth parties seek to establish high levels of environmental protection. By way of example, Canada–Chile 1996 states that 'each Party shall ensure that its laws and regulations provide for high levels of environmental protection and shall strive to continue to improve those laws and regulations', thus imposing a result-based obligation. Other agreements contain weaker obligations of conduct, asking parties to 'strive to' ensure high levels of environmental protection.[54] Uniquely, CETA 2016 contains an obligation of conduct, but adds that the governance of environmental protection is to be conducted 'in a manner consistent with the multilateral environmental agreements' and that laws and policies are to 'provide for and encourage high levels of environmental protection' (Gehring and Phillips, 2019).[55]

Interestingly, the BLEU (Belgium-Luxembourg Economic Union)–Mozambique BIT (2006) provides that, 'Contracting Parties recognise that co-operation between them provides enhanced opportunities to improve environmental protection standards. Upon request by either Contracting Party, the other Contracting Party shall accept to hold expert consultations on any matter falling under the purpose of this Article.'[56]

Including explicit references to climate change mitigation and adaptation to these provisions may help drive ambition toward achieving Paris Agreement objectives, particularly with respect to climate change adaptation measures, which may not be considered to be environmental protection measures.

6.2 Non-regression clauses

Non-regression provisions are also an increasingly common feature of FTAs, and constitute a commitment on behalf of the parties not to regress on internationally recognised environmental standards and obligations in order to secure trade advantage or economic gain (Gehring and Phillips, 2019; Lofts et al. 2017).[57] A survey of FTAs involving Commonwealth states reveals a number of formulations of non-regression provisions. Agreements involving Canada commonly provide that neither party shall encourage trade or investment by weakening or reducing levels of protection afforded in its environmental laws.[58] Similarly, the CARIFORUM–EC EPA 2008 provides that parties agree not to encourage trade or foreign direct investment to enhance or maintain a competitive advantage by (inter alia) lowering domestic environmental protection levels. More comprehensively, Malaysia–New Zealand 2009 provides that 'Neither Party shall seek to encourage or gain trade or investment advantage by weakening or failing to enforce or administer its environment laws, regulations, policies and practices in a manner affecting trade between the Parties'. The Environment chapters of the TPP 2015 and New Zealand–Korea 2015 agreements go further by stating that parties 'shall not waive or otherwise derogate from, or offer to waive or otherwise derogate from environmental law in a manner that weakens or reduces the protections', thus broadening the scope of prohibited conduct.

FTAs and BITs also commonly include specific non-regression provisions with respect to investment. A simple example of a provision that features in a number of FTAs involving Commonwealth countries is this one from Brunei–Japan 2007, which states that 'Each Party recognises that it is inappropriate to encourage investments by investors of the other Party by relaxing its environmental measures'.[59] Some agreements contain non-regression provisions in both their environment and investment chapters.

CARIFORUM–EC EPA 2008 and New Zealand–Korea 2015 provide the following useful examples:[60]

CARIFORUM–EC EPA 2008

- Title II (Investment, Trade in Services and E-Commerce), Chapter 2 (Commercial presence), Article 73 – Maintenance of standards
- The EC Party and the Signatory CARIFORUM States shall ensure that foreign direct investment is not encouraged by lowering domestic environmental, labour or occupational health and safety legislation

and standards or by relaxing core labour standards or laws aimed at protecting and promoting cultural diversity.

– Title IV (Trade related issues), chapter 4 (environment), Article 188 – Upholding levels of protection
  1. Subject to Article 184(1), the Parties agree not to encourage trade or foreign direct investment to enhance or maintain a competitive advantage by:
     a. lowering the level of protection provided by domestic environmental and public health legislation;
     b. derogating from, or failing to apply such legislation.
  2. The Parties and the Signatory CARIFORUM States commit to not adopting or applying regional or national trade or investment-related legislation or other related administrative measures as the case may be in a way which has the effect of frustrating measures intended to benefit, protect or conserve the environment or natural resources or to protect public health.

New Zealand–Korea 2015

– Investment chapter art 8.10 Investment and Environment
  (2) The Parties recognise that it is inappropriate to encourage investment by relaxing domestic health, safety, or environmental measures.
– Environment chapter art 17.5 Upholding Levels of Protection in the Application and Enforcement of Laws
  (3) The Parties recognise that it is inappropriate to encourage trade or investment by weakening or reducing the protections afforded in each Party's respective environmental law. Accordingly, each Party shall not waive or otherwise derogate from, or offer to waive or otherwise derogate from environmental law in a manner that weakens or reduces the protections afforded in that law to encourage trade or investment between the Parties.

Many of the surveyed BITs allow parties to request consultation upon an alleged breach.[61] One of the more comprehensive clauses is that of Canada–Mali BIT (2014), which provides:

1. 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, those measures to encourage the establishment, acquisition, expansion, or retention in its territory of an investment of an investor.
2. If a Party considers that the other Party has offered such an encouragement, it may request consultations with the other Party and the Parties shall consult with a view to avoiding any such encouragement. During these consultations, the Parties undertake to make best efforts in good faith to resolve any dispute regarding the application of paragraph 1. …

Canada–Nigeria BIT (2014) goes further, allowing for parties to consult or request establishment of an arbitral tribunal.[62]

Including non-regression clauses such as those above is a useful means for Commonwealth states to commit to maintaining their environmental standards and achieving their NDCs, in accordance with the Paris Agreement (Gehring and Phillips, 2019).[63] Further, non-regression has been described by Professor Jorge Viñuales as 'perhaps a major new principle of international environmental law in the years to come' (Viñuales, 2016). Detailed non-regression provisions, such as those that feature in Malaysia–New Zealand 2009, TPP 2015 and New Zealand–Korea 2015, should be encouraged. Including non-regression clauses in investment chapters as well as in the environment chapters of FTAs is an important means of integrating environmental concerns more thoroughly into FTAs, and should feature in future agreement negotiations. To bring international trade law into better alignment with Paris Agreement objectives, non-regression provisions should make explicit reference to climate change law as well as environmental protection laws, and could even refer to a requirement not to derogate from NDC commitments.

A challenge for future FTAs will be establishing (a) how regression can be proven and (b) the legal consequences of regression (Gehring and Phillips, 2019).[64] Clauses allowing for consultation and arbitral tribunals upon alleged breach may provide a step in the right direction.

7. Broad co-operation on climate and environmental issues and renewable energy

Co-operation with respect to climate change and other environmental issues is an increasingly common feature of trade agreements, particularly those involving the EU (Gehring and Phillips, 2019).[65] The intricacy of climate change co-operation provisions has increased over the past decade: many older agreements that refer to climate change simply provided that parties would develop and strengthen co-operation on environment, including climate change and its prevention.[66] By contrast, more recent climate change co-operation provisions are more extensive,

Some agreements incorporate co-operation on strengthening the UNFCCC regime: EU-Japan contains a commitment to implementing the Paris Agreement, requiring both parties to work together to realise UNFCCC aims, take steps to meet Paris objectives and promote trade as a means of reducing GHG emissions and of achieving climate-resilient development.[67] In EC–Singapore, parties reaffirm their commitment to the UNFCCC, Kyoto and Paris agreements, to work together to strengthen the UNFCCC regime, and to support efforts to develop a post-2020 international climate change agreement under the UNFCCC that applies to all parties.[68]

Where renewable energy technologies are mentioned in FTAs, this is commonly in the context of co-operation provisions; for example, promoting research, investment, development and trade related to these technologies.[69] In EC–Singapore, areas of co-operation include addressing adverse effects of trade on climate and promoting low-carbon technologies and energy efficiency.[70]

CETA's article on 'co-operation on environmental issues' provides that parties commit to co-operate in areas such as (among others): the environmental dimension of corporate social responsibility; 'trade-related aspects of the current and future international climate change regime, as well as domestic climate policies and programmes relating to mitigation and adaptation, including issues relating to carbon markets, ways to address adverse effects of trade on climate, as well as means to promote energy efficiency and the development and deployment of low-carbon and other climate-friendly technologies'; 'trade and investment in environmental goods and services, including environmental and green technologies and practices; renewable energy; energy efficiency; and water use, conservation and treatment'.[71]

Notably, EU–Republic of Moldova 2014 contains a separate 'Climate Action' chapter, under the title 'Economic and Other Sectoral Co-operation'.[72] This chapter contains extensive co-operation provisions with respect to climate change, many of which relate to capacity-building and are particularly relevant for climate-vulnerable countries, stating that parties 'shall develop and strengthen their cooperation to combat climate change',[73] and more specifically, that

> co-operation shall promote measures at domestic, regional and international level, including in the areas of:
> a. mitigation of climate change;
> b. adaptation to climate change;
> c. carbon trading;
> d. research, development, demonstration, deployment and diffusion of safe and sustainable low-carbon and adaptation technologies;
> e. mainstreaming of climate considerations into sector policies; and
> f. awareness raising, education and training.[74]

Additionally, parties shall exchange information and expertise, implement joint research activities and exchanges of information on cleaner technologies, and implement joint activities at regional and international levels, including with regard to multilateral environmental agreements ratified by parties.[75] According to article 95,

> cooperation shall cover, among others, the development and implementation of:
> a. an overall climate strategy and action plan for the long-term mitigation of and adaptation to climate change;

b. vulnerability and adaptation assessments;
c. a National Strategy for Adaptation to Climate Change;
d. a low-carbon development strategy;
e. long-term measures to reduce emissions of greenhouse gases;
f. measures to prepare for carbon trading;
g. measures to promote technology transfer on the basis of a technology needs assessment;
h. measures to mainstream climate considerations into sector policies; and
i. measures related to ozone-depleting substances.

Further, the parties are to have regular dialogue on the issues covered in the Climate Action chapter.[76] Under the agreement, the Republic of Moldova undertakes to gradually approximate its legislation to specific EU climate legislation and international instruments within specified time periods.[77] The agreement also contains a separate chapter on 'Trade and Sustainable Development', which includes 'trade-related aspects of the current and future international climate change regime, including means to promote low-carbon technologies and energy efficiency' among the list of areas in which parties 'may co-operate'.[78]

The EU–Central America 2012 agreement is another example of an agreement that recognises differences in capacity between parties, and features a number of provisions that may be of assistance to LDC negotiators:

– Its chapter on 'Political Dialogue' provides that 'Parties shall promote a dialogue in the areas of environment and sustainable development by exchanging information and encouraging initiatives on local and global environmental issues, recognising the principle of shared but differentiated responsibilities, as set forth in the 1992 Rio Declaration on Environment and Development', and that this dialogue 'shall be aimed, inter alia, at fighting the threat of climate change, biodiversity conservation, the protection and sustainable management of forests to, inter alia, reduce emissions from deforestation and forest degradation, the protection of hydro and marine resources, basins and wetlands, the research and development of alternative fuels and renewable energy technologies and the reform of environmental governance in view of increasing its efficiency'.[79]
– The 'Economic and Trade Development' chapter provides that 'Parties agree to cooperate, including by supporting technical assistance, training and capacity building actions in, inter alia, 'promoting trade related cooperation mechanisms as agreed by the Parties to help implement the current and future international climate change regime'.[80]
– The Parties also agree that 'their joint objective shall be to foster co-operation in the field of energy, in particular sustainable clean and renewable energy sources, energy efficiency, energy saving technology, rural electrification and regional integration of energy markets, among others as identified by the Parties, and in compliance with domestic legislation', and that such co-operation may include, inter alia, 'promotion of the application of clean development mechanisms to support the climate change initiatives'.[81]

The co-operation provisions in some agreements involving the Commonwealth recognise the intersection between climate change and particular industries. One example is Korea–Australia 2014, whose chapter on co-operation welcomes parties to cooperate in relation to the impact of climate change on marine ecosystems,[82] and on forestry resources.[83] Korea–New Zealand 2015 is another example, referring to the 'role of the agriculture, forestry and fisheries sectors in contributing to low-carbon green growth'.[84]

Climate change co-operation is likely to continue to feature in FTAs, with increasing calls for mutual compliance with Paris Agreement objectives as a precondition of any trade negotiation or agreement (Gehring and Phillips, 2019).[85] Negotiators should recognise that taking effective climate change mitigation measures could constitute a competitive disadvantage in some areas, and should provide for broad collaboration to counter this (Gehring and Phillips, 2019).[86] Including separate chapters on climate action, as seen in EU–Republic of Moldova and EU–Georgia, is a progressive step that should guide future FTA negotiations.

7.1 Climate change in dispute settlement provisions

FTAs involving Commonwealth states may also include climate change provisions in their dispute settlement provisions. CETA's Trade and Environment chapter contains a dispute resolution clause and provides for the creation of a Committee on Trade and Sustainable Development to implement chapter provisions. EU–Korea also contains provision for a Committee on Trade and Sustainable Development, and for government consultations and creation of a panel where a dispute arises. Because these provisions are contained within trade and environment chapters, they operate separately from the general dispute resolution provisions, thus carry less force, and do not specify penalties (Gehring and Phillips, 2019).[87] This approach is in line with the facilitative approach that many environmental law treaties, including the UNFCCC and Paris Agreement, take toward enforcement (Gehring and Phillips, 2019).[88]

7.2 Removal of tariff and non-tariff barriers to address climate change

Some FTAs involving Commonwealth states go further than requiring co-operation on climate change matters. For example, the 'Trade and Environment' chapter in New Zealand–Chinese Taipei (Taiwan) 2013, which aims to contribute to sustainable development by promoting mutually supportive trade and environment policies, and enhancing capacities and capabilities of parties to address trade-related environmental issues,[89] provides for eliminating tariff and non-tariff barriers to address climate change:[90]

1. The Parties recognise that facilitating trade in environmental goods and services through elimination of tariff and non-tariff barriers can enhance economic performance and address global environmental challenges including climate change; natural resources protection; water, soil and air pollution; management of waste and waste water; and depletion of the ozone layer.
2. Accordingly, the Parties shall:
   a. eliminate all tariffs on environmental goods[91] upon entry into force of this Agreement;
   b. facilitate the movement of business persons involved in the sale, delivery or installation of environmental goods or the supply of environmental services[92] in accordance with Chapter 14 (Temporary Entry of Business Persons);
   c. endeavour to address any non-tariff barriers identified by either Party that impede trade in environmental goods or services, working through the Joint Commission as appropriate; and
   d. encourage the application of good regulatory principles to the design of any future standards and regulations relating to environmental goods and services, including transparency, proportionality, a preference for least trade-distorting measures, and the use of internationally agreed standards.

Another model example is found in Title IX, 'Trade and Sustainable Development', art 275 of EU–Colombia and Peru 2012, titled 'climate change':

1. Bearing in mind the United Nations Framework Convention on Climate Change (hereinafter referred to as 'UNFCCC') and the Kyoto Protocol, the Parties recognise that climate change is an issue of common and global concern that calls for the widest possible co-operation by all countries and their participation in an effective and appropriate international response, for the benefit of present and future generations of mankind.
2. The Parties are resolved 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, on the basis of equity and in accordance with their common but differentiated responsibilities and respective capabilities and their social and economic conditions, and taking particularly into account the needs, circumstances, and high vulnerability to the adverse effects of climate change of those Parties which are developing countries.
3. The Parties also recognise that the effect of climate change can affect their current and further development, and therefore highlight the importance of increasing and supporting adaptation efforts, especially

in those Parties which are developing countries.

4. Considering the global objective of a rapid transition to low-carbon economies, the Parties will promote the sustainable use of natural resources and will 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.
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.

The above provision, which refers to the principle of common but differentiated responsibilities, and takes account of the high vulnerability of developing country parties, provides a useful model for future FTAs involving developing countries. While art 275(5) only provides that parties 'agree to consider' removing trade barriers, the mention of removal is a positive step, and future FTAs should build on this and include stronger language favouring – or perhaps mandating – removal of barriers.

A final example of removing barriers is found in the 'Trade and Sustainable Development' chapter of EU–Moldova 2014, in which 'Parties reconfirm their commitment to enhance the contribution of trade to the goal of sustainable development in its economic, social and environmental dimensions'. Parties 'shall strive to facilitate and promote trade and investment in environmental goods and services, including through addressing related non-tariff barriers', and also 'shall strive to facilitate the removal of obstacles to trade or investment concerning goods and services of particular relevance to climate change mitigation, such as sustainable renewable energy and energy efficient products and services, including through the adoption of policy frameworks conducive to the deployment of best available technologies and through the promotion of standards that respond to environmental and economic needs and minimise technical obstacles to trade'.[93]

7.3 Voluntary market mechanisms

In addition to provisions calling for removal of trade and investment barriers, another advancement is promotion of voluntary market mechanisms. The 'Trade and Environment' chapter in New Zealand–Chinese Taipei (Taiwan) 2013 recognises that flexible, voluntary mechanisms, such as information and expertise sharing, voluntary auditing and reporting and market-based incentives, can contribute to high levels of environmental protection.[94] According to the provision, parties should encourage development of these mechanisms, and should encourage businesses, NGOs and others who are developing or applying voluntary environmental goals or standards to do so transparently, and where appropriate, based on internationally recognised standards, recommendations or guidelines.

The Australia–US 2004 agreement's environment chapter also refers to voluntary mechanisms, providing that 'The Parties recognise that flexible, voluntary, and market-based mechanisms can contribute to the achievement and maintenance of high levels of environmental protection. As appropriate and in accordance with its law, each Party shall encourage the development of such mechanisms, which may include partnerships, sharing information, and market-based mechanisms that encourage the protection of natural resources and the environment.'[95] The TPP 2015 contains a similar provision: 'The Parties recognise that flexible, voluntary mechanisms, for example, voluntary auditing and reporting, market-based incentives, voluntary sharing of information and expertise, and public-private partnerships, can contribute to the achievement and maintenance of high levels of environmental protection and complement domestic regulatory measures. The Parties also recognise that those mechanisms should be designed in a manner that maximises their environmental benefits and avoids the creation of unnecessary barriers to trade.'

Provisions removing trade and investment barriers to climate change while considering the circumstances of developing countries, and

allowing for voluntary market mechanisms, are important developments that should feature more heavily in future agreements.

7.4 Carbon markets

According to the World Bank's 2019 report on Trends, interest in international co-operation has increased. By way of example, the EC recently held its first policy dialogue with China's new Ministry of Ecology and Environment, reiterating continued bilateral co-operation in developing China's national emissions trading scheme (ETS) (World Bank, 2019, p. 11).

Carbon markets are not widely mentioned in FTAs, but have featured in some co-operation provisions: CETA provides that Parties commit to co-operate in areas such as trade-related aspects of the current and future international climate change regime, as well as domestic climate policies and programmes relating to mitigation and adaptation, including issues relating to carbon markets, ways to address adverse effects of trade on climate, as well as means to promote energy efficiency and the development and deployment of low-carbon and other climate-friendly technologies. Further, the EU–Central America 2012 agreement provides that 'cooperation 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',[96] thus promoting domestic carbon markets. Additionally, EU–Moldova's 'climate action' chapter (set out in detail above), includes carbon trading as an area for co-operation.

The EU–Colombia and Peru 2012 agreement promotes REDD, providing that parties

> recognise the importance of co-operation activities that contribute to the implementation and better use of this Title and, in particular, to the improvement of policies and practices related to labour and environmental protection as set out in its provisions. Such co-operation activities should cover activities in areas of mutual interest, such as … (d) *activities related to the adaptation to, and mitigation of, climate change, including activities related to the reduction of emissions from deforestation and forest degradation ("REDD");* (e) activities related to aspects of the international climate change regime with relevance for trade, including trade and investment activities to contribute to the achievement of the objectives of the UNFCCC;….[97]

International co-operation through carbon pricing has the potential to contribute significantly to reducing the costs of climate change mitigation, needed for countries to achieve their NDCs, and synonymous with the co-operation objectives of article 6 of the Paris Agreement (World Bank 2019, p. 11). Provisions that foster adoption and use of international or national climate finance mechanisms offer an opportunity for developing countries to formulate or strengthen domestic carbon financing legislation or to better partake in international carbon trading schemes.

7.5 Corporate social responsibility

Another feature of trade and investment agreements that has begun to gain momentum over the past decade is the incorporation of corporate social responsibility (CSR) provisions (Peels et al., 2016). A common formulation used in BITs involving Canada provides that 'each party should encourage enterprises operating within its territory or subject to its jurisdiction to voluntarily incorporate internationally recognized standards of corporate social responsibility in their practices and internal policies'.[98] CETA's preamble encourages 'enterprises operating within their territory or subject to their jurisdiction to respect internationally recognised guidelines and principles of corporate social responsibility, including the OECD Guidelines for Multinational Enterprises, and to pursue best practices of responsible business conduct', and article 24.12 provides that parties commit to co-operate on areas such as 'environmental dimension of corporate social responsibility and accountability, including the implementation and follow-up of internationally recognised guidelines'.[99] A stronger formulation, found in EU–Moldova 2014, states that parties agree to promote CSR. Meanwhile, Morocco-Nigeria 2016 interestingly addresses investors directly, providing that 'where standards of corporate social responsibility increase, investors should strive to apply and achieve the higher level standards'.[100]

Strengthening the language of CSR provisions may provide a significant opportunity for FTAs to enhance climate change mitigation efforts, for example, by requiring parties to formulate and enforce CSR standards upon investors and private companies within their jurisdictions, or to enforce international CSR standards with respect to environmental practices.

7.6 Disaster response provisions

For climate-vulnerable Commonwealth nations, particularly those with developing status, the increasing severity and frequency of climate-related natural disasters is a key – and growing – area of concern (Sawada and Takasaki 2017).[101] This concern is reflected in the detailed domestic disaster management legislation of Commonwealth LDC's such as Bangladesh, canvassed above. International trade agreements with climate-vulnerable countries should respect these domestic concerns, and seek to enhance countries' capacity to prevent and respond to disasters.

7.7 Co-operation and regional integration

A number of FTAs involving Commonwealth states include co-operation provisions. The EU–Eastern and Southern Africa States Interim EPA includes 'mitigation of natural disasters, prevention of environmental disasters and the loss of biodiversity' in its list of areas of co-operation.[102] This reference to 'prevention' of disasters may be useful for encouraging parties to take proactive climate change adaptation measures. A more detailed provision is found in EC–Slovenia, which, in its chapter on economic co-operation, states:

> In the field of protection against natural disasters, the aim of co-operation is to assure protection of people, animals, property and environment against natural and man-made disasters. To this end, the co-operation shall include the following areas:
> – exchange of the outcome of the scientific and research development projects;
> – mutual and early notification on hazards, disasters and their consequences;
> – rescue and relief assistance systems in cases of disasters;
> – exchange of experience in rehabilitation and reconstruction after a disaster;
> – education and training for protection against natural and man-made disasters;
> – rescue and relief exercise.[103]

Notably, EU–Central America 2012 combines co-operation provisions with regional integration objectives. Its preamble highlights the parties' 'commitment to working together in pursuit of the objectives of poverty eradication, job creation, equitable and sustainable development, including aspects of vulnerability to natural disasters, environmental conservation and protection and biodiversity, and the progressive integration of the Republics of the CA Party into the world economy'.[104] In its separate chapter on 'Environment, Natural Disasters and Climate Change', article 51 states:

1. The Parties agree that cooperation 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 coordination and government support.
2. The Parties shall encourage strategies that reduce social and environmental vulnerability 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.

Additionally, separate 'regional integration' provisions state that cooperation may further promote the coordination of sectoral policies in areas such as environment and prevention and response to natural risks and disasters (among others).[105]

If used the right way, this concept of promoting alignment of disaster prevention and response policies through trade agreements has significant potential to enable LDCs to coordinate and strengthen their responses to climate-induced disasters, particularly where the agreement involves several LDCs in a closely defined geographical location.

7.8 Rebates

Of the agreements surveyed, Southern African Customs Union (SACU) was the only agreement to allow states to grant rebates of customs duties in respect of goods imported where such

rebates are for relief of the distress of persons in cases of national disasters.[106]

7.9 Technical barriers to trade

The impact of climate-induced disasters may pose barriers for LDCs to uphold their trade commitments. Some agreements acknowledge this reality. Significantly, EU–Papua New Guinea/Fiji includes a unique provision that allows a party to impose or increase tariffs where necessary in response to a natural disaster:[107]

> Where a Pacific State or the EC Party is in serious balance of payments and external financial difficulties, or under threat thereof, and in particular where a Party or Pacific State determines that … there has been a natural disaster that has or is likely to cause a serious decline in government revenue or private sector revenue, that Party or Pacific State may impose or increase tariffs for the minimum period necessary and to the minimum extent necessary to arrest or prevent the serious decline in reserves, or to enable reserves to increase at a reasonable rate, or to arrest or preventa serious decline in the fiscal position.

In such circumstances, parties or Pacific States 'may determine the incidence of the restrictions on imports of different products or classes of products in such a way as to give priority to the importation of those products which are more essential'.[108] Application of restrictions is subject to a number of preconditions: for example, parties must endeavour to avoid applying restrictive measures, measures must be consistent with WTO and IMF obligations, and notification and consultation are required.[109]

For climate-vulnerable Commonwealth countries such as Papua New Guinea and Fiji, the presence of provisions of this nature may prove increasingly important as climate-induced disasters grow more frequent and severe. Including such provisions in future agreements creates an opportunity for states to alter their trade obligations in response to climate disasters.

7.10 Potential future options for countries

Our findings provide a number of useful forward steps for future trade and investment agreement negotiations, particularly those involving LDC and climate-vulnerable Commonwealth states. Some key options for provisions that could feature in future agreements, in summary, are:

First, co-operation provisions on climate action and renewable energy should be extensive. They should cover co-operation on strengthening the UNFCCC regime. Parties should commit to promoting carbon trading. They should also co-operate on research, investment, development and trade relating to renewable energy technologies and other environmental goods and services.

Second, co-operation provisions should extend to capacity-building and technology transfer, by providing that parties will promote technology transfer; support technical assistance, training and capacity-building operations; promote trade and investment measures that facilitate access, dissemination and use of best available technologies – for renewable energy production and use, as well as for climate change mitigation and adaptation; and co-operate on development and implementation of vulnerability and adaptation assessments. FTAs and BITs should explicitly recognise that the effect of climate change can affect development, and highlight the importance of increasing and supporting adaptation efforts in developing countries, citing the principle of common but differentiated responsibilities.

Third, co-operation should also cover development and implementation of strategies and action plans for long-term climate change mitigation and adaptation, and should strengthen parties' domestic climate action plans, by providing for cooperation on development and implementation of national climate change strategies. Including these in a separate environment chapter, or climate action chapter, in the FTA or BIT, may be a useful means to include these co-operation provisions.

Fourth, negotiators should explore provisions facilitating trade in environmental goods and services through elimination of tariff and non-tariff, while considering the circumstances of developing countries. Provisions that include commitments to undertake capacity-building activities to implement REDD+ and the CDM, or to assist domestic carbon market development, are to be encouraged (Gehring et al., 2013).

Finally, FTAs and BITs should include disaster prevention and response provisions that promote capacity-building. The Sendai Framework

for Disaster Risk Reduction 2015-2030 reinforces SDG 13 by recognising the intersection between climate change, sustainable development and disaster risk reduction (UNISDR, 2015; Lofts et al., 2017). Cooperation relating to natural and man-made disasters should thus cover information exchange about the outcomes of scientific and research development projects relating to climate disasters; early notification of disasters and their consequences; rescue and relief assistance; exchange of experience in rehabilitation and reconstruction following a disaster; and education and training for disaster protection. Provisions should explicitly refer to cooperation with respect to strengthening domestic disaster management provisions. Further, parties should have the ability to impose or increase tariffs where necessary in response to a climate-induced disaster, where the disaster has or is likely to cause a serious decline in government or private sector revenue.

8. Conclusions: next steps for strengthening capacity in climate-vulnerable countries

Commonwealth Secretary-General, Rt Hon Patricia Scotland QC, recently called on policymakers to consider with the utmost seriousness how to support countries' access to climate finance, promote innovation and demand strong and enforceable climate laws (Scotland, 2019). Our findings show that Commonwealth states have displayed innovation in their domestic climate legislation and trade and investment agreements.

Studies show that highly climate-vulnerable countries are more likely to include climate provisions in their preferential trade agreements: the EU is an exception to the trend, being less vulnerable while being one of the strongest proponents of mitigation (Morin and Jinnah, 2018). In future, including climate change mitigation and adaptation commitments is likely to become standard practice in all trade agreement negotiations. Negotiators from LDCs and climate-vulnerable states have an opportunity to encourage provisions that promote capacity-building and climate resilience, and also that respect the reality that climate-induced disasters may impede their ability to comply with trade obligations.

Notes

1 Brunei Darussalam is the only Commonwealth nation yet to submit an NDC (at 1 August 2020). For more information, see the NDC Registry at https://www4.unfccc.int/sites/NDCStaging/Pages/All.aspx.
2 The Commonwealth, 2015. Note one country expressed reservations to some of these commitments.
3 See, e.g., Kenya, Malta, New Zealand and Pakistan.
4 Malta, Climate Action Act 2015.
5 Kenya, Climate Change Act 2016, s 13.
6 Kenya, Climate Change Act 2016, s 13.
7 NZ, Energy Efficiency and Conservation Act 2000, s 6.
8 New Zealand, Resource Management Act 2004, s 7.
9 Malta, Climate Action Act 2015, s 4.
10 Malta, Climate Action Act 2015, s 5.
11 Kenya, Climate Change Act 2016, s 13.
12 Kenya, Climate Change Act 2016, s 16.
13 Kenya, Climate Change Act 2016, s 20.
14 Kenya, Climate Change Act 2016, s 23.
15 Bahamas, Forestry Act 2010 and Forestry Regulations 2014.
16 See, e.g., New Zealand, Ghana, Kenya.
17 See, e.g., Kenya.
18 Australia, National Greenhouse and Energy Reporting Act 2007
19 Australia, Building Energy Efficiency Disclosure Act 2010
20 Kenya, Energy Act 2006, s 106.
21 See, e.g., Malta, Pakistan.
22 See, e.g., Bangladesh, Kenya, Mozambique, Tuvalu, Seychelles, and Pakistan.
23 See, e.g., Antigua and Barbuda, Canada, Ghana, India, Malaysia, Sri Lanka.
24 Trinidad and Tobago.
25 Bangladesh, Rwanda.
26 Kenya.
27 Papua New Guinea, Mauritius.

28 See, e.g., Antigua and Barbuda, Ghana, India, Malaysia, Malta, Nigeria, Tonga. The United Kingdom's feed-in tariff scheme ended in March 2019, and will be replaced by a different scheme in 2020.
29 See, e.g. Antigua and Barbuda, The Gambia, South Africa, Barbados.
30 South Africa.
31 Gambia, Renewable Energy Act 2013, s 14.
32 Markus Gehring and Freedom Kai Phillips, Legal Options for Post-Brexit Climate Change and Energy Provisions in a Future UK-EU Trade Agreement – Legal Working Paper (Brussels, ECF 2019) available online: https://www.cisdl.org/wp-content/uploads/2019/07/Post-Brexit_Provisions_report_final.pdf, 13.
33 The United Kingdom is currently part of the EU's ETS, but has indicated that it will install a carbon tax following Brexit.
34 Canada, Greenhouse Gas Pollution Pricing Act.
35 United Kingdom, Malta.
36 Australia, Clean Energy Finance Corporation Act 2012, Pt 6.
37 Lesotho, Environment Act 2008, s 3.
38 Antigua and Barbuda.
39 Pakistan, Mauritius, Bangladesh, Australia.
40 Malaysia, s 16.
41 See, e.g., Seychelles, Bangladesh, Tuvalu, Singapore.
42 Seychelles, Disaster Risk Management Act 2014.
43 Tuvalu, Environmental Protection Act, Pt 8.
44 Pakistan.
45 Seychelles, Energy Act 2012, Pt VIII.
46 Conservation and Climate Adaptation Trust of Seychelles Act 2015.
47 See, e.g. Australia, Canada, Kenya, Mauritius, Samoa.
48 Energy Efficiency Act 2011 s 6.
49 Samoa, Forestry Management Act 2011, s 30.
50 Samoa, Forestry Management Act 2011, s 32.
51 Pakistan.
52 See, e.g., EU–Central America 2012.
53 See, e.g., NAFTA, CETA, EU–Singapore, EU–Japan.
54 See, e.g. EC–Moldova 2014; EC–Singapore 2015.
55 CETA 2016; Gehring and Phillips, above n 33, 27. Gehring and Phillips contains many further examples.
56 BLEU (Belgium-Luxembourg Economic Union)–Mozambique BIT (2006) art 7(4).
57 Gehring and Phillips, above n 33, 23; Lofts, Katherine, Sharowat Shamin, Sharaban Tahura Zaman, and Robert Kibugi (2017) 'Brief on Sustainable Development Goal 13 on taking action on climate change and its impacts: Contributions of international law, policy and governance.' *McGill J. Sust. Dev. L.* 13: 183.
58 See, e.g., Canada–Columbia 2008; Canada–Jordan 2009; Canada–Peru 2009; CETA. Similar wording is seen in Canada–Panama 2010, Central America–EC 2012
59 See, e.g. Brunei–Japan 2007; Canada–Jordan (2009), Canada–Panama (2010), Canada–Costa Rica (2001), India–Japan (2011).
60 See CARIFORUM–EC EPA 2008 arts 73 and 188, and Canada–Korea
61 See similar provisions in Benin–Canada (2013) BIT art 15; Burkina Faso–Canada BIT (2015) art 15; Cameroon–Canada BIT (2014) art 15; Canada–Côte d'Ivoire BIT (2014) art 15; Canada–Czech Republic BIT (2009) art II; Canada–Guinea BIT (2015) art 15; Canada–Hong Kong, China–SAR BIT (2016) art 15; Canada–Jordan BIT (2009) art 11; Canada–Korea, Republic of FTA (2014) art 8.10; Canada–Kuwait BIT (2011) art 15; Canada–Latvia BIT (2009) art II; Canada–Mongolia BIT (2016) art 15; Canada–Peru BIT (2006) art 11; Canada–Romania BIT (2009) art II; Canada–Senegal BIT (2014) art 15; Canada–Serbia BIT (2014) art 15; Canada–Slovakia BIT (2010) art II; Canada–United Republic of Tanzania BIT (2013) art 15. India–Korea, Republic of CEPA (2009) art 10.16 and Nigeria–Singapore BIT (2016) art 10; Rwanda–United States of America BIT (2008) art 12.
62 Canada–Nigeria BIT (2014) art 15.
63 Gehring and Phillips, above n 33, 24.
64 Ibid.
65 Ibid, 21; Lofts et al., 2017.
66 See, e.g. EC–Slovak Republic Europe Agreement 1993, art 81; EC–Slovenia Europe Agreement 1996, art 82.
67 EU–Japan 2008, art 16.4
68 EC–Singapore art 12.6.
69 Korea–Australia; Central America–EU arts 20, 65.
70 EC–Singapore art 12.10.
71 CETA 2016 art 24.12.
72 See EC–Moldova ch 17.
73 EC–Moldova art 92.
74 EC–Moldova art 93.
75 EC–Moldova art 94.
76 EU–Moldova, art 96.
77 EU–Moldova, art 96 and Annex XII
78 EU–Moldova, art 375. See also EU–Georgia 2014 art 239.
79 EU–Central America 2012, art 20.
80 EU–Central America 2012, art 63.
81 EC–Central America art 65(2)(d).
82 Australia–Japan 2014, art 16.6.
83 Australia–Japan 2014, art 16.7.
84 Korea–New Zealand 2015, art 14.3. See also arts 14.5, 14.6.
85 Gehring and Phillips, above n 33, 22.
86 Ibid, 21.
87 Ibid, 22–3.
88 Ibid, 23.
89 New Zealand–Chinese Taipei 2013, Chapter 17, art 1.
90 New Zealand–Chinese Taipei 2013, Chapter 17, art 3 'environmental goods and services'.
91 For the purposes of this Agreement, environmental goods are those which positively contribute to the green growth and sustainable development objectives of the Parties, and are set out in an Annex.
92 For the purposes of this Agreement, environmental services refers to services directly related to the investment, sale, delivery or installation of environmental goods defined in subparagraph 2(a) of this Article, as well as services that fall under the WTO classification MTN.GNS/w/120 or the Provisional Central Product Classification, 1991.
93 EU–Moldova, art 367. See also EU–Georgia 2014 and EC–Singapore 2015 art 12.11.
94 New Zealand–Chinese Taipei 2013, Chapter 17, art 4.
95 Australia–US 2004, art 19.4.
96 EU–Central America 2012, art 50.

97 EU–Colombia and Peru 2012, art 286(j).
98 See, e.g. Canada–Nigeria BIT 2014; Canada–Mongolia BIT 2016; Canada–Mali BIT 2014; Canada–Korea 2014; Canada Honduras 2013; Canada–Guinea 2015.
99 CETA 2016, art 24.12.
100 Ibid., Art 24(3).
101 Sawada, Yasuyuki and Yoshito Takasaki (2017), 'Natural Disaster, Poverty, and Development: An Introduction' 94 *World Development*: 2-15
102 EU–Eastern and Southern Africa States Interim EPA art 51.
103 EC–Slovenia art 82. See also EU–Georgia arts 376–379.
104 EU–Central America 2012.
105 EU–Central America 2012, art 72.
106 Southern African Customs Union (SACU) art 20.
107 EU–Papua New Guinea/Fiji, art 45(1).
108 EU–Papua New Guinea/Fiji, art 45(3).
109 EU–Papua New Guinea/Fiji, art 45.

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