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The Paris Climate Agreement: What Implications for Trade?

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Trade Hot Topics

The Paris Climate Agreement: What Implications for Trade?

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Background

In December 2015 the Parties to the United Nations Framework Convention on Climate Change (UNFCCC) met as the 21st Conference of the Parties, and concluded an agreement to address the challenges of climate change at the multilateral, regional and national levels.¹ The resulting Paris Agreement charts a course for addressing both mitigation of emissions and adaptation to the impacts of climate change after the end of the Kyoto Protocol's second commitment period in 2020. The Decision to Adopt the Agreement also contains elements of a workplan to be implemented in the 2016–2020 period. Taken together, these results mark a historic and comprehensive accord to address climate change at the global level by, among others:

- limiting global average temperature increases to well below 2 degrees Celsius above pre-industrial levels, and striving to achieve a cap of 1.5 degrees;
- increasing the ability to adapt to climate change; and
- making finance flows consistent with a pathway towards low greenhouse gas emissions and climate resilient development.

In service of those objectives the Parties agreed to formulate commitments, framed as *nationally determined contributions* (NDCs), covering actions in a number of areas, including mitigation, adaptation, finance, technology development and transfer, and capacity-building. Against this backdrop, this issue of *Commonwealth Trade Hot Topics* examines the potential implications of the Paris Agreement for trade and investment policy for Commonwealth member countries. It also explores more broadly how governments might support a mutually reinforcing relationship between the trade and environment regimes.

How does the Paris outcome relate to trade?

The Paris Agreement does not have direct reference to trade or investment policies. It does not compel Parties to take any specific measures related to mitigation or adaptation such as, for example, phasing out fossil fuels. Rather, it commits them to deriving their own individual nationally appropriate plans for achieving the overall objective of the Agreement and the Convention.

The trade and investment policy implications of the Agreement, then, are indirect. One such set of implications is to be found in the nature of the transition that will be brought about by the successful implementation of the various NDCs:

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¹ For a more comprehensive summary of the Paris negotiations and outcome, see Granoff, I (2016), 'The Trade Implications of Climate Policy After Paris' (forthcoming), Commonwealth Secretariat, London.

the opportunities for new or expanded trade flows to fuel a global green economy. Another is inherent in what the agreement does *not* say: what sorts of unilateral actions are Parties free to take, given the lack of specific direction the Agreement provides the Parties in terms of achieving their NDCs? Both of these sets of implications are examined below.

Opportunities for trade-related green growth

The existing global market for low-carbon and environmental goods and services in 2012 was valued at approximately US\$5.5 trillion, of which just under 80 per cent was directly climate-related.² It is arguable that, were all the Parties to fulfil their NDCs, that figure would be significantly increased. Certainly if the ambition of the NDCs is ramped up to match the scale of action needed as per the Agreement's 2-degree objective it implies a transformation of the global economy not paralleled since the industrial revolution. This in turn implies a massive increase in investment, trade and new technological development in fields such as energy, transportation, construction, waste management and agriculture.

A few examples can illustrate the scale and nature of the potential markets involved. In the area of energy, the International Energy Agency (IEA) has built scenarios for global energy demand and investment assuming the global community is successful in its ambitions to limit anthropogenic climate change. In the 2-degree scenario, the IEA estimates an average annual investment of more than US\$1 trillion per year between 2016 and 2050 *over and above the baseline scenario*. This investment is envisioned to be both public and private, and includes US\$19 trillion in the transport sector, primarily invested in electric vehicles and their associated infrastructure; US\$11 trillion in the buildings sector; and US\$14 trillion in the power sector, invested primarily in new generation technologies such as solar, wind, geothermal and other low carbon generation technologies, as well as energy storage technologies.³

In a similar vein, Bloomberg Energy Finance, focusing just on generating capacity in the renewable energy sector, predicts investment of over US\$8 trillion over the next 25 years, or over

US\$300 billion per year. Other sectors in which significant investment will be needed include waste management, agriculture, manufacturing and water.

This is a necessarily shallow picture of the types of change that will characterise the global economy in the coming years if the Parties manage to fulfil the NDCs they have submitted under the Paris Agreement. The changes will be created primarily by national regulations and initiatives aimed at reducing greenhouse gas emissions and adapting to climate change, which will send the driving price signals to investors and producers.

In a comprehensive costing exercise, the United Nations Environment Programme (UNEP) in 2011 estimated that overall greening of the economy (which of course includes objectives such as biodiversity preservation that are only indirectly related to climate change, but of which response to climate change is the major component) will require an annual investment in the range of US\$1 trillion to US\$2.6 trillion annually, *over and above* baseline projected investment. While the analysis is often cast in terms of needed investment, the implications for trade are direct and straightforward. IEA's projected investment in the solar sector, for example, falls mainly into two categories: purchases by consumers of final products such as solar panels, transformers and batteries, and investment in productive capacity to manufacture those final products. These represent new and significant markets for exports.

The potential for unilateral policies that impact trade

The Paris Agreement does not dictate what the Parties must do to fulfil the commitments inherent in their NDCs, the details of the implementing policies being left to sovereign discretion. This allows the Parties to focus on those areas of policy that best align with their individual national priorities.

That discretion, however, may allow scope for unilateral action that has important trade and investment implications. The Parties did not agree in Paris to forswear the use of some policy tools that are controversial among trading partners. Three types of tools in particular are relevant here: border

² UK Department for Business, Innovation and Skills (2013), *Low-Carbon and Environmental Goods and Services*.

³ These numbers add up to more than the US\$40 trillion of expected incremental investment, because the new investment in the power sector is expected to be accompanied by a decrease of roughly US\$5 trillion in investment from the baseline case in conventional technologies such as fossil fuels.

carbon adjustment (BCA), subsidies as green industrial policy, and carbon standards and labelling.

Border taxes

BCAs and similar tools are a response to uneven carbon pricing across jurisdictions. Applied to imports, it assesses a charge on imported goods commensurate with what the good would have borne had it been produced under domestic climate regulations – either a carbon tax or a requirement to purchase offsets. Applied to exports, it rebates any climate-related charges imposed on goods that are destined for foreign markets where such charges are not imposed on their producers.

There is no immediate prospect that BCAs will be used, however. It has been proposed a number of times and has consistently been rejected in the legislative or regulatory process. But as Parties implement increasingly forceful Paris Agreement commitments, they will inevitably consider the competitiveness and leakage impacts of their policies, and BCA will undoubtedly be weighed as one option for addressing them.

Subsidies

A different sort of unilateral measure is subsidisation of green firms or sectors, used as a tool of industrial policy. Subsidies – in the form of grants of land or cash, low-interest loans, tax preferences, price floors or premiums, mandatory purchase regimes or other support – may be used to address market failures that prevent the growth of infant industries in the new markets discussed above. They may also be used, as they are in the case of renewable energy technologies, to level the playing field vis-à-vis competing conventional goods, which are not taxed for their full environmental damage, and which on the contrary are often subsidised.

From an environmental perspective, subsidies of this sort may be beneficial. As noted above, they may help firms in a new and dynamic sector overcome significant market failures and reach a point of global competitiveness. But they may also present a problem for those countries hoping to gain market share in the low-carbon economy that the Paris Agreement should usher in. They may be

used to prolong the life of firms that are not and never will be competitive, providing unwelcome competition to others struggling to enter the market. They may be offered with local content requirements attached as a condition, which forecloses foreign opportunities for trade and investment with the implementing country.⁴ For those countries with thin treasuries, foreign subsidies may simply be unmatchable, even if they are 'properly' employed in every sense. The contest for market share in the emerging sectors is definitely tilted towards larger economies, both because of their superior ability to support infant industries, and also because they provide supported firms with a larger domestic market for their products.

The new markets that will result from the Paris Agreement will likely spawn more and fiercer competition in the form of such support. At present the most heavily supported sector is renewable energy, but in future sectors such as automobile manufacturing are destined to be a target.

Product Carbon Footprint (PCF) labelling

Another type of measure that may emerge more strongly in the follow-up from the Paris Agreement is the use of labelling to regulate traded goods on the basis of their embodied carbon. Embodied carbon is the amount of carbon emitted across some specified portion of the life-cycle of a good – typically from production to disposal, or from production to the point of final sale. The CO₂ equivalent emissions released over the product's life-cycle is often called the *product carbon footprint* (PCF).

Ecolabels such as PCF labels were at one time a niche market, but in recent years and in selected commodities they are becoming decidedly mainstream, assuming a growing segment of global markets. One study surveyed 16 global voluntary sustainability standards across 10 major commodities and estimated a global traded value of US\$31.6 billion in 2012.⁵ To be clear, these labels deal with more than just climate change issues, but carbon-based criteria are central to many of the schemes including, for example, Rainforest Alliance and UTZ.

⁴ Such subsidies are prohibited under the WTO's Subsidies and Countervailing Measures Agreement, as well as possibly the Agreement on Trade-Related Investment Measures, and have been the subject of two high-profile cases in recent years: *Canada–Renewables* (DS412) and *India–Solar Cells* (DS456).

⁵ Potts, J et al. (2014), *The State of Sustainability Initiatives Review 2014: Standards and the Green Economy*, International Institute for Sustainable Development/International Institute for Environment and Development.

There are two concerns with the current state of PCF labels. First, the various methodologies for calculating embodied carbon are arguably not reliable enough to use as a basis for labels that will have significant trade and market impacts.⁶ There is no single agreed method for calculating a product's embedded carbon, and the differing assumptions used in terms of scope and boundary of the life-cycle assessment will yield dramatically different results for the same goods. As well, data availability, reliability and compatibility are critical problems; data at the producer level for agricultural products is particularly difficult. As a result, the PCF labelling schemes used by different private retailers are a concern.

The second concern with PCF labelling is that, like all ecolabelling schemes, it has the potential to work against poverty alleviation. Ecolabels (like other quality standard systems) will tend to work against smaller producers.⁷ The fixed costs of certification and the inevitable restructuring of management systems are more easily borne by those producers with larger revenues over which to spread those costs. In addition, buyers tend to prefer larger producers, and will buy from them in preference to smaller producers. This is because when the buyer is tasked with ensuring the sustainability of the supply chain, it is much simpler to do so with a smaller number of large producers.

Both of these problems only manifest to the extent that producers are disadvantaged by *not* certifying under the PCF labelling schemes. This would certainly be true if such labels were mandatory government-led efforts. It might be true to a lesser extent if the labels achieved such market share as to become *de facto* mandatory. As to the first of these concerns, there are currently no mandatory PCF labels. The second concern may be more salient. That is, labels may gain enough market penetration to become *de facto* mandatory. This will probably happen in the context of sustainable cocoa, for example, within the next ten years.⁸ As well, where the labels in question are propounded by private retailers, they may be 'voluntary' in the

sense that they are not mandated by governments, but they are ultimately conditions of sale, especially where the retailers control a large share of the buyers' market.⁹

Policy implications

While trade and investment are not directly mentioned in the Paris Agreement, there are important elements of the trade agenda that should be pursued to take advantage of the opportunities presented by the coming green transition, as well as to protect against the downsides of unilateral climate action. However, given the heterogeneity of countries, no one-size-fits-all recommendations are possible or appropriate. Each country will need to determine what efforts are most appropriate to its unique priorities and capacity. Ideally there would be consensus on the broad outlines of a trade agenda that complements and supports the Paris Agreement, while delivering positive trade and investment outcomes.

Undertake national assessment for green industrial policy

The new export opportunities in green markets will be important drivers for those economies that manage to secure some market shares. Several Commonwealth countries are already manoeuvring to take advantage of the opportunities. For most countries such initiatives should be preceded by a national assessment of the broad areas of potential comparative advantage. Evidence confirms the intuitive – almost all frontier green innovation takes place in high-income countries, but powerful emerging economies such as India are also capable of creating the conditions for the growth of champions in the green technology space.

At the same time, there are also important ways in which low-income and small market economies can take advantage of the green transformation, including support for 'base-of-pyramid' innovation and catch-up innovation. The former is innovation that meets the needs of poor consumers. It can be

6 Bolwig, S and Gibbon, P (2009), 'Emerging product carbon footprint standards and schemes and their possible trade impacts', Risø National Laboratory for Sustainable Energy, Technical University of Denmark.

7 ITC (2013), 'Taking stock of the Current Research on the Impacts of Voluntary Sustainability Standards (with particular emphasis on the agri-foods sector)', Geneva: International Trade Centre; KPMG (2012), 'Cocoa Certification: Study on the costs, advantages and disadvantages of cocoa certification', study commissioned by the International Cocoa Organization.

8 Cosby, A (2015), 'Policy Case Study: Food Labeling', Climate for Sustainable Growth Series, Centre for European Policy Studies.

9 Arcuri, A (2013), 'The TBT Agreement and Private Standards', Chapter 14 in Epps, T and Trebilcock, M J (eds), *Research Handbook on the WTO and International Trade*, Edward Elgar, pp. 485–524.

formal or informal, and is often co-created with the consumers themselves building on traditional knowledge. The latter is innovation that adapts already existing technology for local uses, making those technologies more widely available. Support for these types of low-income and small-market country innovation involve *inter alia* facilitating access to technology, in which open trade and investment policies have important roles to play, and stimulating technology absorption and development by domestic firms via science and innovation policies.¹⁰

Attract climate-specific investment

There are two vehicles by which developing countries might attract climate-specific finance. One is via the new market mechanisms that will be set up as a result of the Paris Agreement. Under the Kyoto Protocol, the Clean Development Mechanism (CDM) proved to be an important mechanism for delivering investment to developing countries in areas that mitigated climate change.¹¹ Chapter 6 of the Paris Agreement provides for a market mechanism that will be further elaborated by the Parties in subsequent meetings.¹² Countries should closely monitor this area of negotiations and take the necessary steps to ensure that they are able to benefit from the final result.

In the same vein, Chapter 5 of the Paris Agreement affirms the existing arrangements for finance for reduced emissions from deforestation and forest degradation (REDD+). This source of funding is actually a number of different sources, with funds flowing from various donors through the World Bank and other agents, to countries that take action to reduce emissions from their forestry sectors.

The other vehicle of interest is the UNFCCC's Green Climate Fund (GCF), which the Parties confirmed was to serve the Paris Agreement and which is part of the UNFCCC Financial Mechanism. The GCF is the vehicle the Parties will use to

channel the financing (US\$100 billion of private and public money by 2020) that was committed before the advent of the Paris Agreement. The Fund currently has US\$10 billion in committed funding available. In an innovative arrangement, financing is available not only to states (and public bodies such as environment or development ministries, development banks), but also to the private sector.¹³ Also worth noting is the intention to roughly balance investment between mitigation and adaptation, with at least half of the latter funds going to those countries most vulnerable to the impacts of climate change: least developed countries (LDCs), small island states and African states. The explicit focus is sustainable development.

Creating resilience, particularly for countries over-dependent on exports that are exposed to climate risks, involves economic diversification. For those Commonwealth members able to make the case to the GCF, there may be opportunity to help finance efforts to diversify, particularly into green economic activity. As well, and linked to this rationale, countries could make the case for investments to protect trade-related infrastructure from the impacts of climate change: ports protected from storm surges, for example. These sorts of investments would fall under the theme 'infrastructure and built environment'. But the case could also be made that they provide livelihood benefits to all those that depend on the trade flows involved. Commonwealth members would be well advised to begin the process of preparing to receive and manage GCF funding.

Harmonise sustainability standards and/or methodologies

Any efforts to harmonise sustainability standards and their associated methodologies will make it easier for exporters to access the covered markets. Developed countries might co-ordinate capacity-building assistance for those less developed states whose producers struggle to meet sustainability standards. Evidence from the

¹⁰ For in-depth guidance on green industrial policy, see World Bank (2012), 'Green Innovation and Industrial Policies', in World Bank, *Inclusive Green Growth: The Pathway to Sustainable Development*; Rodrik, D (2014), 'Green Industrial Policy', *Oxford Review of Economic Policy*, Vol. 30(3): 469–491; Cosbey, A (2013), 'Green Industrial Policy and the World Trading System', ENTWINED Issue Brief No. 17, Stockholm: ENTWINED Network.

¹¹ The Protocol's first commitment period (2008–2012) delivered 2.2 Gt of emission reductions, at prices ranging from US\$5–30 per tonne, equating to billions of dollars of revenue for the project proponents, and just under US\$30 million directed to the UNFCCC's Adaptation Fund. But the real strength of the CDM was the flow of actual North–South investment it enabled, which was an order of magnitude greater than the flow of CDM revenues.

¹² See Granoff, *op. cit.*

¹³ Private sector accredited entities to date include mostly investment funds with a social mandate and a project development/funding approach.

cocoa and palm oil sectors shows that with dedicated capacity-building efforts it is possible to overcome, or at least mitigate, the anti-small producer bias of sustainability standards.¹⁴ High mandatory domestic product standards are one way to stimulate domestic demand for green goods. Used in combination with other policies, it can be a tool to help develop domestic capacity to produce such goods.

Make the trade and climate regimes mutually supportive

World Trade Organization (WTO) members, through the 2001 Doha Ministerial Declaration, and UNFCCC Parties have repeatedly affirmed the desirability of mutual supportiveness between trade and environmental objectives. All that said, the question remains what practical steps can be taken to effect the mutual supportiveness that both regimes desire. Possibilities include the following:

- Anything that increases the flow of green goods and services internationally will have beneficial impacts from both an environmental and a trade perspective. This could range from harmonising sustainability standards, or at least of methodologies, to the liberalisation of green goods and services. The latter, however, is easier said than done; it has languished with the rest of the Doha results in the WTO context, and is proving difficult to effect at the plurilateral level among like-minded countries. Asia-Pacific Economic Cooperation (APEC) members managed to conclude an agreement of this sort, cutting tariffs on a slim list of 54 goods to 5 per cent as of 2015. The real prize in this respect is non-tariff barriers, as well as services. It is hoped that the current plurilateral efforts to negotiate an Environmental Goods Agreement will eventually lead to such broader commitments.
- Green industrial policy, however, will often deliberately impede the flow of goods to shelter infant industries. If the policy is well implemented, this can pay economic, social and environmental dividends in the long run. If it is not, then it actually represents a setback from the perspective of both trade and environment –

more is spent to get less environmental result. It is important, then, to use green industrial policy judiciously, and as part of a suite of other less distortionary tools aimed at the same effect.

- The most direct way to forestall BCAs would be a broadly implemented regime of carbon taxation. If all goods were priced so as to internalise environmental costs, then trade flows would be environmentally neutral and there would be no rationale for restricting trade on environmental grounds. There are enormous difficulties in arriving at such a scenario, of course. But it at least needs to be noted that it would greatly reduce almost all trade and environment tensions.
- The WTO's current law is now more than 20 years old. A host of new issues have risen to prominence since the conclusion of the Uruguay Round, including the need to address environmental subsidies (such as renewable energy subsidies), perverse subsidies (such as fossil fuel subsidies), energy trade, sustainability standards, and green industrial policy tools. But in the absence of an active forum in which to discuss them, such issues will remain lacunae in the global economic architecture. Finding a way to progress the Doha Round, or ways to work around the slow progress in that setting, would allow room to advance in areas that would strengthen the mutual supportiveness between the trade and environmental regimes.

¹⁴ Cosby (2015), op. cit.

International Trade Policy Section at the Commonwealth Secretariat

This Trade Hot Topic is brought out by the International Trade Policy (ITP) Section of the Trade Division of the Commonwealth Secretariat, which is the main intergovernmental agency of the Commonwealth – an association of 53 independent states, comprising large and small, developed and developing, landlocked and island economies – facilitating consultation and co-operation among member governments and countries in the common interest of their peoples and in the promotion of international consensus-building.

ITP is entrusted with the responsibilities of undertaking policy-oriented research and advocacy on trade and development issues and providing informed inputs into the related discourses involving Commonwealth members. The ITP approach is to scan the trade and development landscape for areas where orthodox approaches are ineffective or where there are public policy failures or gaps, and to seek heterodox approaches to address those. Its work plan is flexible to enable quick response to emerging issues in the international trading environment that impact particularly on highly vulnerable Commonwealth constituencies – least developed countries (LDCs), small states and sub-Saharan Africa.

Scope of ITP Work

ITP undertakes activities principally in three broad areas:

- It supports Commonwealth developing members in their negotiation of multilateral and regional trade agreements that promote development friendly outcomes, notably their economic growth through expanded trade.
- It conducts policy research, consultations and advocacy to increase understanding of the changing international trading environment and of policy options for successful adaptation.
- It contributes to the processes involving the multilateral and bilateral trade regimes that advance more beneficial participation of Commonwealth developing country members, particularly, small states and LDCs and sub-Saharan Africa.

ITP Recent Activities

ITPs most recent activities focus on assisting member states in their negotiations under the WTO's Doha Round and various regional trading arrangements, undertaking analytical research on a range of trade policy, emerging trade-related development issues, and supporting workshops/dialogues for facilitating exchange of ideas, disseminating informed inputs, and consensus-building on issues of interest to Commonwealth members.

Selected Recent Meetings/Workshops Supported by ITP

12 - 13 May 2016: Caribbean Regional Consultation on Recent Developments in Trade, held in Port of Spain, Trinidad and Tobago.

10 - 12 May 2016: UNCTAD/Commonwealth Secretariat/International Oceans Institute Seminar: 'Oceans Economy and Trade', held in Geneva, Switzerland.

14 - 15 April 2016: African Regional Consultation on Recent Developments in Trade and Continental Integration, held in Lusaka, Zambia.

30 - 31 March 2016: Commonwealth Expert Group on Trade: 'Revitalising Global Trade and Multilateralism', held in New Delhi, India.

16 - 18 December 2015: The 2030 Sustainable Development Agenda and the Multilateral Trading System, held in Nairobi, Kenya.

12 -13 November 2015: Emerging Global and Regional Trade Issues for the Commonwealth Pacific Region, held in Tonga.

15 - 16 October 2015: Meeting for Commonwealth Caribbean Countries in Preparation for the 10th WTO Ministerial Conference, held in Bridgetown, Barbados.

29 September - 1 October 2015: Expert Group Meeting on Trade in Sustainable Fisheries, held in Geneva, Switzerland.

23 - 24 June 2015: Commonwealth Trade Symposium: 'Shaping a Global Trade Agenda for Development', held in Johannesburg, South Africa.

18 - 19 June 2015: Workshop for Commonwealth African Countries in Preparation for the 10th WTO Ministerial Conference, held in Kigali, Rwanda.

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