Society of International Economic Law

Online Proceedings
Working Paper No. 2016/06

FIFTH BIENNIAL GLOBAL CONFERENCE
JULY 7-9, 2016
MANDELA INSTITUTE
UNIVERSITY OF THE WITWATERSRAND

WTO Rules Can Prevent Climate Change Mitigation for Agriculture

CHRISTIAN HÄBERLI
WORLD TRADE INSTITUTE

June 24, 2016
Published by the Society of International Economic Law

This paper can be downloaded free of charge from:
https://ssrn.com/link/SIEL-2016-Johannesburg-Conference.html

C/O LAW DEPARTMENT
London School of Economics
Houghton Street
London
WC2A2AE

world trade institute

nccr trade regulation
swiss national centre of competence in research

Hallerstrasse 6, 3012 Berne, Switzerland
tel + 41 31 631 30 80, fax + 41 31 631 36 30
www.nccr-trade.org

SIEL's Fifth Biennial Global Conference: International Economic Law in a Diverse World?
Draft Working Paper dated 24 June 2016 to be presented in Panel IV: Renewable Energy/Climate Change

Comments welcome by 1 September 2016

WTO Rules Can Prevent Climate Change Mitigation for Agriculture

Christian Häberli*

Abstract

This paper asks how countries can implement their commitments to limit the increase in the global average temperature under the recent Paris Agreement on Climate Change for agriculture. An initial examination of the relevant trade rules and case law indicates that they appear unable to legally secure the necessary differentiation of products and services according to their climate footprint. Indeed, the main purpose of the multilateral trade rules framework is to combat discrimination. This compatibility issue is compounded by the development dimension: while poor developing countries and poor farmers have always been and remain the least significant greenhouse gas emitters in absolute terms, they are among the most severely affected by, and the least resilient to climate change. This means that their food security is perhaps the gravest equity issue in the whole climate change discussion. Climate change therefore appears as a new, major and highly complex cause of (additional) food insecurity. The paper finds that contrary to the official discourse of 'mutual supportiveness' between trade and environment agreements, WTO rules and commitments can actually prevent climate action, for agriculture generally as well as with specific solutions for the development dimension. 'Paris' thus requires a comprehensive, careful and urgent review of the relevant agricultural trade and investment rules – and a number of adjustments commensurate with the multiple challenges of global warming.

Keywords: Agriculture, Climate Change, Food Policy, International Economic Law, Paris Agreement, UNFCCC, WTO

JEL Classification: K32, K33, N50, Q17, Q18, Q22, Q23, Q24, Q25, Q42

*Senior Research Fellow, NCCR Trade Regulation, World Trade Institute, Bern University
Web: http://www.wti.org / http://www.nccr-trade.org/people/haeberli/
Mail: christian.haeberli@wti.org
Research for this paper was funded by the Swiss National Science Foundation under a grant to the National Centre of Competence in Research on Trade Regulation, based at the World Trade Institute of the University of Berne, Switzerland.

Table of Contents

I. Introduction and Summary

The *Paris Agreement under the United Nations Framework Convention on Climate Change* (UNFCCC) is a roadmap with a clear objective: to limit the increase in the global average temperature 'to well below 2°C above pre-industrial levels.' It has three mechanisms for technology transfer, finance, and review. All signatories commit to taking action to address climate change. Their 'nationally determined' upfront commitments will increase over time and along precise milestones.[1]

At the same time the Paris Agreement is an easy target for cynics, because it lacks control and enforcement mechanisms, and sanctions for non-compliance. Moreover, a multicity of considerations to be taken into account for implementation may complicate the attainment of the treaty's objective.[2]

This article does not discuss differentiation between 'developed' and 'developing' countries. It only considers implementation measures with trade and investment implications. Because these may be challenged under the non-discrimination rules of the World Trade Organization (WTO), their legal nature matters for regulators and operators. However, unlike earlier UNFCCC decisions, the Paris Agreement makes no reference whatsoever to implementation measures such as for the limitation and reduction of greenhouse gas emissions (GHG). Hence the research question is whether the implementation measures envisaged at the national level, and recommended by climatologists, are compatible with current trade and investment rules or, if not, can be made immune to legal challenges.

[1] Annex to Document FCCC/CP/2015/L.9/Rev.1 dated 12 December 2015. The *Paris Agreement* is now available at https://treaties.un.org/pages/ViewDetails.aspx?src=IND&mtdsg_no=XXVII-7-d&chapter=27&lang=en. The *United Nations Framework Convention on Climate Change* (adopted at the 'Rio Earth Summit' in 1992, United Nations Treaty Series vol. 1771 p. 107) and the *Kyoto Protocol* (adopted on 11 December 1997; entry into force on 16 February 2005, United Nations Treaty Series vol. 2303 p. 162) with its three implementation mechanisms are all at the UNFCCC website https://unfccc.int/essential_background/convention/items/6036.php (last accessed on 13 June 2016).

[2] Article 2.1(a), further developed in Section II. Other considerations, for instance, are in Preamble Indent 11 which reads as follows: 'Acknowledging that climate change is a common concern of humankind, Parties should, when taking action to address climate change, respect, promote and consider their respective obligations on human rights, the right to health, the rights of indigenous peoples, local communities, migrants, children, persons with disabilities and people in vulnerable situations and the right to development, as well as gender equality, empowerment of women and intergenerational equity'

The hypothesis is that despite the diplomatic discourse of 'mutual supportiveness' between environment and trade agreements, the regulatory deficits in both fields hamper or impede collective and autonomous action on climate change. This not only includes the product and process distinction according to climate impacts, which is necessary for, and an implicit corollary of, practically all implementation measures designed to avoid self-discrimination, such as border adjustment measures (BAM) and carbon emission trading schemes (ETS). Multilateral trade rules also affect climate-friendly subsidies and other incentives. In fact, without legal security regulatory innovations or investments in climate-smart technologies and products may either be challenged by competitors, or abused by free-riders.

The paper starts with the objectives and commitments of the Paris Agreement, and describes the implementation measures aiming at climate-smart investment, production and trade (Section II). Examples of such measures are then examined in the light of the general and some specific WTO non-discrimination rules, and available jurisprudence (Section III). Section IV focuses on the still neglected development dimension of climate change mitigation in poor countries, for poor food producers, for women farmers and for indigenous people. Despite numerous proclamations of smallholder support and the lessons learned for food security after the last food crises, unaddressed governance failure and WTO rules deficiencies might well amplify the poverty issues resulting from climate change. The analysis in Section V shows a number of legal issues hampering or preventing climate-smart policies. Section VI concludes with suggestions of possible WTO rules adjustments for better multilateral governance and regulation, both for general climate action and as remedies for the development disconnect.

Finding solutions in this particular facet of the climate change challenge involves three steps. First, all climate mitigation measures affecting trade should be examined in the light of all WTO non-discrimination rules (see Table 4 – Selective List of Climate-Relevant WTO Agreements). The second step would be a proposal for climate- and development-friendly trade and investment rules for agriculture, water, and aquaculture. The WTO membership (instead of, as today, adjudicators) will then have to decide which of these climate and development measures have an acceptable trade impact. This quite possibly will require some adjustments of rules, and of market access commitments. Table 3 below is a contribution to this far-reaching yet urgently required exercise.

II. 'Paris' objectives, commitments, and implementation

Diplomats and ministers are not used to excessive restraints when formulating ambitious objectives. Article 2.1(a) of the Paris Agreement foresees that the global response to the threat of climate change will aim at

> [h]olding the increase in the global average temperature to well below 2°C above pre-industrial levels and pursuing efforts to limit the temperature increase to 1.5°C above pre-industrial levels, recognizing that this would significantly reduce the risks and impacts of climate change.

Precaution only kicks in when it comes to quantified commitments and binding implementation measures and modalities. Indeed, what matters for our research question is that the Paris Agreement provides no guidelines on how its signatories are to implement their (national) commitments to reduce their carbon emis-

sions. For instance, while virtually all scientists advocate some form of emission capping, together with BAM and ETS, not a single reference to such measures appears in the agreed text. This is not an oversight by negotiators under intense pressure from public opinion and street demonstrations. The draft texts leading to 'Paris' had already left out all three mechanisms developed under the Kyoto Protocol: International Emissions Trading (ETS), the Clean Development Mechanism (CDM) and Joint Implementation (JI).[3] The normative value of the Kyoto Protocol after 'Paris' is uncertain. However, because at least its erstwhile signatories will probably design their implementation of the Paris Agreement along these three mechanisms, this paper focuses on the relevant aspects therein.

As a consequence of diplomatic precaution, the relevant economic provisions in the Paris Agreement reflect what might be called qualified ambition. Nonetheless, in one of the first post-Paris journal articles, Rajamani emphasises that despite the lack of an 'obligation of result' the nationally determined contributions are based on 'binding obligations of conduct coupled with a good faith expectation of results' and that this provides for 'potentially binding lawmaking in relation to five-yearly communication, provision of information and accounting.'[4]

The economic objective of the treaty is to promote 'economic growth and sustainable development' (Art. 10.5), further qualified 'in a manner that does not threaten food production' (Art. 2.1(b)), and by a hotly disputed differentiation principle reflecting the concerns of 'most affected' economies (Art. 4.15). The role of 'incentives for emission reduction activities, including tools such as domestic policies and carbon pricing' is recognised in the Paris Decision preceding the text of the Agreement. This decision also invites non-Party stakeholder support, and 'sharing of best practices on mitigation and adaptation in a holistic and integrated manner.'[5]

However, there is neither an agreed typology nor an indicative list for a 'Paris Toolbox'. The Agreement itself makes not a single mention of trade, tariffs, investments, and subsidies, ETS or BAM. Basically the same goes for the Technology Mechanism (Art. 10), the Finance Mechanism (Art. 9), and the Review Process assessing the 'adequacy and effectiveness of adaptation and support provided for adaptation' (Art. 7, 13 and 14).

This lack of precision allows the WTO to claim that, until now, there has been no evidence of a conflict between the trade and environmental regimes and to posit, time and again, that '[w]e must enable the full realization of the complementary benefits between trade and climate policies' and that '[t]he case law has confirmed that members may be permitted to apply trade restrictive environmental measures *as long as they are not applied arbitrarily or used as disguised protectionism.*'[6] Hence, and without further challenges from 'Paris' or from trade disputes, trade diplomats in Geneva will in all likelihood continue talking merely about ensuring a harmonious co-existence between WTO rules and specific trade

[3] Cf. FN1 *supra* for references and examples

[4] Lavanya Rajamani (April 2016), Ambition and Differentiation in the 2015 Paris Agreement: Interpretative Possibilities and Underlying Politics. 65/02 *International and Comparative Law Quarterly* 493 – 514

[5] Paragraphs 136 and 137 of the Decision by the Parties to the UNFCCC adopting the Paris Agreement contained in the Annex (*supra* FN 1).

[6] Statement by WTO Deputy Director-General Karl Brauner, speaking at a side-event at the UN climate change conference (COP 21) in Paris on 9 December 2015; downloaded on 1 June 2016 at https://www.wto.org/english/news_e/news15_e/ddgra_09dec15_e.htm (emphasis added).

obligations in various agreements, and pursue their efforts to liberalise so-called environmental goods and services.

For an assessment of 'Paris' implementation measures involving agricultural production and trade it might be useful to make a distinction between primarily national and international tools for climate-relevant policies.

Mainly 'national' climate tools can be presented in four boxes:

1. Production: subsidies (investment and consumption incentives, BAM and ETS, exceptions for sensitive sectors), (staple) food support (infrastructure, operation), production risk insurance schemes, various forms of food stockpile policies, access to credits, meteorology, biofuels, biotech, organic agriculture

2. Science and education: research, policy advice, training and extension services

3. Legal issues: land tenure, women's rights, indigenous peoples' and communal rights, cooperatives reform, intellectual property rights along the food chain, access to courts and enforcement

4. Social policies: (small) farmer support schemes, gender measures, food aid, emergency measures, migration policies, legal assistance

'International' climate tools could be listed according to their topical relevance:

1. Investment (whether national or international, or a combination of both): impact assessment, international protection agreements and instruments, investment and production credits, FDI incentives and investment contracts with a public interest clause preventing 'land grab'[7], dispute settlement

2. Commerce: commodity exchanges, weather (re-)insurance, (international) futures and other risk hedging instruments, regional, private and 'virtual' food reserve schemes, consumer information e.g. labelling

3. Trade: tariffs, quotas (tariff-rate quotas or quantitative restrictions), licensing, other border measures with a goods and services footprint differentiation (BAM, ETS, differential CO^2 taxes, performance requirements), safeguards (including climate-related prudential carve-outs for financial services), export taxes and restrictions, trade defence and balance of payments measures, infant industry protection, import standards and regulations, trade promotion, multilateral and regional trade agreements

The relevance of the international framework varies for each of these instruments, and there is no clear distinction between 'national' and 'international' instruments. Also, country-specific circumstances and factor endowments will modify such a list, and definitely the normative value and the priorities for different governments and operators.

[7] Christian Häberli and Fiona Smith (2014), Food security and agri-foreign direct investment in weak states: finding the governance gap to avoid "land grab". 77(2) *Modern Law Review* 189-222

We can now look at the main international provisions relevant for a climate-friendly design and use of some of these tools.

III. WTO and non-discrimination

For all climate-related measures product differentiation is perhaps the most important common denominator. This section starts with the general non-discrimination rules in the WTO, and shows how these might hamper or prevent measures involving product differentiation. Specific rules for specific measures look even less resilient to the challenge of global warming.[8]

1. General rules

The most basic notion of the multilateral trade rules is non-discrimination (a) between foreigners ('most favoured nation' clause, or MFN) and (b) between foreign and national suppliers of goods and services ('national treatment' or NT). These two principles are laid down for goods in the GATT (Articles I and III) and for services in the GATS (Articles II and XVII).[9] Border protection for domestic goods is limited to tariffs and a few other duties and charges laid down in country schedules (Art. II GATT). In a similar fashion, the general MFN and NT obligations, as well as the scheduled specific commitments by individual members, apply to trade in services (Articles XVI – XVIII GATS).

There are exceptions for all these rules. But no exception specifically allows, say, the internalisation of carbon emission costs necessary under a polluter-pays-principle. Moreover, scheduled commitments and border measures can only be modified with compensation offered to so-called 'principal' and 'substantial suppliers' of the goods and services involved (Articles XXVIII GATT and XXI GATS). Finally, measures protecting the environment or health must not constitute 'arbitrary or unjustifiable discrimination between countries where the same conditions prevail' (Art. XX GATT). The same applies to the 'public morals' exception: even when based on international standards, it has never successfully justified an otherwise WTO-inconsistent measure. Hence a justification of WTO-incompatible climate change mitigation measures under such defences would seem to have little chances of being accepted in a WTO dispute.[10]

As outlined in more detail below, other general rules relevant here apply to climate-friendly subsidies. Rules on technical regulations and standards may 'not be more trade-restrictive than necessary to fulfil a legitimate objective' and

[8] The analysis summarised here has been developed in my article '*Adaptation of Agricultural Trade and Investment Rules to Climate Change' in* Mary Jane Angelo and Anél du Plessis (Eds.), Research Handbook on Climate Change and Agriculture Law. Edward Elgar, Cheltenham/UK and Northampton/US (forthcoming 2016)

[9] See Table for a list of climate-relevant WTO Agreements with acronyms

[10] The ‚public morals' exception was only invoked four times as a legal defence justifying violations of WTO non-discrimination rules: (i) The US sought to to uphold a prohibition on internet gambling. (ii) China justified import restrictions of imported audiovisual materials by 'standards of right and wrong conduct which are specific to China.' (iii) The EU tried to uphold its ban on the importation of seal products arguing that 'seal hunting is inherently inhumane and raises moral concerns.' (iv) Colombia argued that this exception protected its efforts to combat money laundering.
In all four cases the adjudicators recognized the right of each WTO Member to self-define its public morals, but rejected the specific measures at issue in each case. For instance, the Colombian measure was found not to be 'necessary' and to lack a sufficient correlation between the trade-restrictiveness of the additional border tariff and its success in combating money laundering.

should be based on international standards, where they exist (Art. 2 TBT).[11] Rules on trade-related intellectual property rights (TRIPS) will be relevant to the Technology Mechanism under Article 10 of the Paris Agreement.

While the promotion of certain services like climate-related research, policy advice, training and extension may 'naturally' favour local providers, some specific cases could arise where foreign suppliers invoke their rights under the GATS or the GPA.

Other problems still to be addressed concern the legal nature of electricity, or of emission trading rights. Whether these are goods or services could also impact on agricultural trade somewhere along the food value chain, because of those WTO rules which only apply to agricultural goods.

Hence, no differentiation without discrimination? The problems at the intersection of trade and climate change seem to increase when we look at some of the specific WTO rules applicable to either 'carrots' (i.e. climate-friendly subsidies) or 'sticks' (trade and investment conditions and restrictions addressing climate change).

2. Specific rules

The official and still widely shared view is that WTO rules, as a whole, offer a framework for ensuring predictability, transparency and the fair implementation of national climate action. It recognises that the WTO 'toolbox' of rules can be relevant to the examination of climate change measures with an impact on international trade (as they may modify conditions of competition). Yet no WTO rules specifically address climate change, and the issue is not even part of the WTO's ongoing work programme. Despite this 'blind spot', trade openness is to help climate change mitigation and adaptation e.g. by 'promoting an efficient allocation of the world's resources (including natural resources), raising standards of living (and hence the demand for better environmental quality) and improving access to environmental goods and services.'[12]

The trade-related provisions in Multilateral Environmental Agreements (MEA) offer no guidance either, even when they reflect language used in WTO provisions (here, Article XX GATT). For example, UNFCCC-Article 3.5 merely exhorts parties to avoid protectionism:

> Measures taken to combat climate change, including unilateral ones, should not constitute a means of arbitrary or unjustifiable discrimination or a disguised restriction on international trade.

The implication is that, for instance, carbon taxation is fine – as long as the measure is not protectionist. But WTO Law offers no definition for 'protectionism'

[11] For example, the International Organization for Standardization (ISO) has adopted four standards (14064 — 1, 2 and 3:2006 and 14065:2007) that include requirements for quantification and reporting of greenhouse gas emissions and reductions. These standards are related to conformity assessment procedures and do not include any product-specific requirements on emission levels. The still ongoing debate on climate change issues in WTO's TBT and CTE Committees is described online at https://www.wto.org/english/tratop_e/envir_e/climate_challenge_e.htm last accessed on 23 June 2016.

[12] Quotes from the WTO Website *The multilateral trading system and climate change: introduction* (https://www.wto.org/english/tratop_e/envir_e/climate_intro_e.htm downloaded on 14 June 2016)

and the notion appears nowhere in the whole WTO rulebook. This means that the burden of proof will be on the respondent to show that an incriminated measure has no trade-distorting impact. For instance, UNFCCC-Article 3 also commits some countries to limit and to reduce their CO^2 emissions. Unlike the Paris Agreement, Article 17 of the Kyoto Protocol to the UNFCCC explicitly foresees carbon taxation and emissions trading for these countries 'supplemental to domestic actions'. The crucial question, however, is whether implementation measures respect MFN and NT rules, and scheduled commitments. Unfortunately, only limited analysis is available for the level of precision required in an issue like emissions trading.

As pointed out by Deane, the General Agreement on Trade in Services (GATS) does not explicitly mention emissions trading; but Article 5(x)(F) of the GATS Financial Services Annex applies to 'other negotiable instruments and financial assets.' This means that foreign service providers must be allowed to participate in national (and EU) trading schemes, and to own certificates, regardless of whether emission units are considered as financial products or not. However, the market access rules applying to the services commitments prohibit limitations of the number of service suppliers or of the total value of service transactions or assets (GATS-Art. XVI:2, paras a and b).[13]

Epps and Green analysed emissions trading under WTO law back in 2010. At that time trade measures were clearly authorised, or even prescribed, in MEA such as the still feted Montreal Protocol on Substances that Delete the Ozone Layer, and the Convention on International Trade in Endangered Species (CITES). Interestingly, however, no WTO complaints were ever made by non-parties to these agreements, despite the implicit discrimination against suppliers of refrigerators with chlorofluorocarbon gases (CFC), or of rare parakeets. Naturally, Epps and Green saw only 'passing references' to trade measures in the UNFCCC.[14]

Forecasts of WTO rulings on future climate-smart measures are impossible. For instance, disputes involving (fossil) energy projects used to be few and far between. But a dozen recent trade disputes concern renewable energy measures. Perhaps significantly, but without questioning the legitimacy of these rulings, all cases listed in Table 1 refer to discrimination claims against foreign goods and services suppliers with widely differing claims, which the respondent (so far) failed to justify under any of the exceptions foreseen in the WTO rules framework.

Table 1 – Litigation about Renewable Energy Measures

Case Number	Respondent and (Short) Title	Complainant	Current Status
DS 419	China — Measures concerning wind power equipment	United States	In consultations since 22 December 2010
DS 412	Canada — Renewable Energy	Japan	Implementation notified by respondent on 5 June 2014

[13] Felicity Deane (2015), *Emissions Trading and WTO Law*. Edward Elgar, Cheltenham (UK) and Northampton MA (USA), p.122s

[14] Tracey Epps and Andrew Green (2010), Reconciling Trade and Climate: How the WTO Can Help Address Climate Change. Edward Elgar, Cheltenham/UK and Northampton/US, p.225.

DS 426	Canada — Feed-In Tariff Program	European Union	Implementation notified by respondent on 5 June 2014
DS 421	Moldova — Environmental Charge	Ukraine	Panel established, but not yet composed on 17 June 2011
DS 437	US — Countervailing Measures (China)[15]	China	Report(s) adopted on 16 January 2015, with a recommendation to bring measure(s) into conformity
DS 443	European Union and a Member State[16] — Certain Measures Concerning the Importation of Biodiesels	Argentina	In consultations since 17 August 2012
DS 459	European Union and Certain Member States — Certain Measures on the Importation and Marketing of Biodiesel and Measures Supporting the Biodiesel Industry	Argentina	In consultations since 15 May 2013
DS 473	European Union — Anti-Dumping Measures on Biodiesel from Argentina	Argentina	Panel report under appeal on 20 May 2016
DS 452	European Union and certain Member States — Certain Measures Affecting the Renewable Energy Generation Sector	China	In consultations since 5 November 2012
DS 480	EU — Biodiesel	Indonesia	Panel composed on 4 November 2015
DS 456	India — Solar Cells	United States	Panel report dated 20 April 2016 under appeal

Source: WTO Webpage (https://www.wto.org/english/tratop_e/dispu_e/dispu_subjects_index_e.htm) as of 6 June 2016

For energy, leading scholars basically agree that WTO compliance of border adjustment measures (BAM) is uncertain, and that the risk of failing to comply with general and/or specific rules is high.[17] Hence applying emission disciplines to imports, and providing emissions allowance rebates for exports remains problematic. Nonetheless, as recently pointed out by Holzer, legal security for BAM and ETS

[15] Including subsidies for solar panels and wind towers
[16] Spain
[17] For a good overview and a detailed analysis of merchandise trade implications see Kateryna Holzer (2014), Carbon-related Border Adjustment and WTO Law. Edward Elgar, Cheltenham (UK) and Northampton MA (USA)

are of utmost importance for such schemes to work efficiently.[18] This also means that for ETS, the boundaries for an 'acceptable interference with international trade' are yet to be found.[19]

This is also the case for other goods and services. The best-known example is the EU's Aviation Directive including aviation in the EU's allowance trading scheme as of 1 January 2012.[20] It was based on a very simple concept: every airplane landing at any EU airport, regardless of the carrier's nationality, pays a (tradable) distance-linked carbon tax. Even though the NT obligation was respected, several countries including China, Malaysia and the USA argued the implementation measures violated WTO rules for non-discrimination by way of tariffs and other duties and charges applying to 'like' products.[21] The EU then had to suspend this climate-friendly measure even before it entered into force. Bartels showed that such a BAM might not withstand a WTO dispute settlement procedure. In addition, he argued that the EU's scheme violated its international civil aviation obligations.[22] Meltzer agrees that a carbon scheme that is administratively feasible and WTO-compatible remains a challenge.[23]

As for agriculture, scientific research is still scarce and, as already indicated, there is no WTO case law. Today only one country – New Zealand – includes this sector in its emissions trading scheme. Perhaps the services component raises fewer problems for production and trade in agriculture than for the general GATS principles applying to energy. Deane discusses the significant differences of emission credits and emission units, concluding on the basis of the Tuna-Dolphin dispute that both are 'products', and that nothing suggests they are 'unlike.' She also analyses the NT issues inherent in the different types of carbon credits, and in different services sectors (Art. XVII GATS).[24]

In many countries climate action under the Paris Agreement will eventually have to include agriculture, its consequent carbon emissions (and GHG sinks) and its freshwater use. Just like for energy, however, no assumptions are possible for the outcome of trade disputes. Litigation on trade in agriculture is dwindling. But for climate-smart agriculture, there is no case law and hardly any literature – perhaps because no climate measures applicable to agricultural production have so far had a trade impact raising more than general concerns in another country.[25] This may change after 'Paris', not least because the rules for sanitary and phytosanitary measures applying to food may also gain importance in a climate change context.

It should be added here that climate change also affects fish and aquaculture. This is a sector subject to other WTO rules, because it is considered as a non-

[18] Kateryna Holzer (April 2016), WTO law issues of emissions trading. NCCR Working Paper No. 2016/1
[19] Deane, *op.cit.supra* FN13, p. 1
[20] Directive 2003/87/EC – Scheme for greenhouse gas emission allowance trading; Directive 2008/101/EC – Inclusion of aviation activities in that scheme (OJ 2009 L 8, p. 3)
[21] This is part of a long-standing debate not further developed here, especially (as here) on so-called 'non-product related PPM' (i.e. process and production methods which leave no trace in the final product.
[22] Lorand Bartels (2012), The WTO legality of the application of the EU's emission trading system to aviation. 23/2 *European Journal of International Law* 429-67
[23] Joshua Meltzer (2012), Climate Change and Trade: The EU Aviation Directive and the WTO. 15/1 *Journal of International Economic Law* 111–156
[24] Deane *op.cit.supra* FN13, pp.27 and 77-78
[25] For instance, none of the fourteen articles in the Special Issue on the Paris Agreement published in the peer-reviewed journal *Climate Law* (Volume 6, 2016) addresses trade rules implications.

agricultural good (Annex 1 AoA). Lee formulates an interesting contention by arguing that fisheries (and shipping) subsidy rules fail to 'reflect the actual practice of subsidy investigations or disputes.' He describes the new rules proposed in the Doha Round NAMA negotiations as a case of 'WTO Minus', arguing that they constitute a 'significant departure from the basic framework of the existing subsidies norms and jurisprudence found in the SCM Agreement.'[26]

Seen in a WTO perspective, the first question will be whether 'climate-smart' farm, fish and ship support measures will distort trade and investment and/or constitute a subsidy deemed illegal under the agriculture and subsidies agreements. Actually, few rules apply here, and the Doha Round negotiations failed to further reduce even those support measures that increase GHG. In their contributions, Peters (for the EU)[27] and Winebarger (for the US)[28] have even argued that such farm policies imply a violation of legal obligations under the Kyoto Protocol, and of decisions promoting UNFCCC and Kyoto Protocol objectives. Actually, the objective of these subsidies matters little for WTO purposes. Such ('Amber Box') support is legal, but limited for each WTO Member and, in addition, challengeable under the SCM Agreement.

The nature of climate action would thus seem to warrant a rather precise definition of WTO-compatible measures, most of which imply differentiation. One such possibility would be an additional item listed in Annex 2 AoA ('Green Box'), as well as an appropriate formulation for fish in the SCM Agreement. The main 'chapeau' condition for all Green Box measures is apparently quite flexible ('no, or at most minimal, trade-distorting effects or effects on production'). But the specific conditions listed for each of the currently twelve provisions allowing for unlimited farm support indicate the intent of the negotiators, then and probably now, to reduce the danger of new tax-financed subsidy wars between unequal partners.

Basically, for securing climate action the WTO has (at least) three avenues which must now be used for the WTO provisions relevant under 'Paris': (i) a carefully crafted decision by the General Council as the highest organ of the WTO could introduce a general exception to many WTO rules, allowing the adoption or enforcement of certain specific measures necessary for implementing the Paris Agreement; (ii) for subsidies and other 'carrots' the Green Box of the AoA could be extended to climate-smart support instruments falling under other WTO provisions; and (iii) for the Paris principle of differentiation, the so-called *special and differentiated treatment* (SDT) should be put to effective use for climate-friendly industry promotion and certain border measures namely in poor developing countries. Table 3 is a list of suggestions for such adjustments for both the general rules and for SDT modifications.

[26] Jae-min Lee (2014), Looking for a Panacea in the SCM Agreement? Systemic Challenges for Post-Bali Fisheries Subidies Discussion and some Food for Thought to Overcome them. 9 *Asian Journal of WTO & International Health Law and Policy* 477-524

[27] Victoria Peters (2015), A Legal Obligation to Mitigate Greenhouse Gas Emissions from Agriculture: A Challenge to the European Union's Emissions Trading System and the EU Member States with the Largest Agricultural Impact. 19 *UCLA Journal of International Law & Foreign Affairs* 213

[28] Lisa Winebarger (2012), Standing behind Beastly Emissions: The U.S. Subsidization of Animal Agriculture violates the United Nations Framework Convention on Climate Change. 27/4 *American University International Law Review* 991-1035

IV. The neglected development dimension

Like its UNFCCC predecessors, the Paris Agreement is impregnated with the notion of differentiation. It encompasses the so-called CBDRRC principle:

> [The agreement] will be implemented to reflect equity and the principle of *common but differentiated responsibilities and respective capabilities*, in the light of different national circumstances.[29]

Article 4.4 provides that

> Developed country Parties should continue taking the lead by undertaking economy-wide absolute emission reduction targets. Developing country Parties should continue enhancing their mitigation efforts, and are encouraged to move over time towards economy-wide emission reduction or limitation targets in the light of different national circumstances.

The obligations are even less constraining for least developed countries (LDC):

> The least developed countries and small island developing States may prepare and communicate strategies, plans and actions for low greenhouse gas emissions development reflecting their special circumstances. (Art. 4.6)

This being, Rajamani as a long-time observer of the climate negotiations rightly underlines that the Paris Agreement

> operationalizes the CBDRRC principle *not by tailoring commitments to categories of Parties* as the FCCC and the Kyoto Protocol do, but by *tailoring differentiation to the specificities of each of the Durban pillars – mitigation, adaptation*, finance, technology, capacity-building and transparency.[30]

The question here is whether and how WTO rules can accommodate these obligations to implement the Paris Agreement according to the different development levels of its signatories. The starting point would seem to be the so-called 'special and differentiated treatment' (SDT). This is the WTO's development dimension. SDT allows for non-reciprocal concessions, longer implementation periods, and smaller tariff and subsidy cuts for developing countries (with LDC only subject to tariff bindings).[31] The usefulness and impact of the countless references to SDT in WTO agreements cannot be discussed here. At any rate, very few provisions exist with substantially extended rights or permanent exemptions for developing countries from important rules, other than LDC. Moreover, the increasing competition between developing countries, not only in agricultural trade, is bound to make new additional SDT rights difficult. In a climate change context the global nature of the issue and of the required collective action against global warming would seem to plead against substantially different treatment for all non-LDC. Nonetheless, efficiently and effectively addressing the development dimension of climate change will require differentiated trade measures which do not presently appear in the present SDT toolbox.

---

[29] Article 2.2; emphasis added

[30] Rajamani *op.cit.supra* FN4, p.27 (emphasis added)

[31] The WTO Secretariat has produced several information notes on the SDT provisions contained in all WTO agreements: WTO, *Information on the Utilization of Special and Differential Treatment Provisions*. The last document in this series is WT/COMTD/W/77/Rev.1/Add.4 dated 7 February 2002

This is especially the case for agriculture where rules differentiation has failed to really address the myriad of specific situations in the WTO membership. Three examples of regulatory failure are provided here.

Firstly, the so-called 'Developing Country Green Box' allows for 'government measures of assistance, whether direct or indirect, to encourage agricultural and rural development' (Art. 6.2 AoA). Yet many of the rapidly increasing measures notified under this provision appear as little else than plain price and production support in developing countries constrained by their scheduled Amber Box limits. This highlights not only the post-Nairobi challenge to address domestic subsidies in the WTO. It also emphasises the need for a very careful crafting of (new) provisions for climate-smart agricultural production and trade policies, particularly when defining countries, and cases, eligible for new SDT measures.

Secondly, the lesson learnt from the failure of the 'Special Products' availability for developing countries, painfully crafted after seven years of intensive Doha Round negotiations, support the contention that even globally valuable carbon reduction efforts should only take place in a clearly defined context, and, if at all possible, with internationally adopted standards. The present lack of binding and 'trade-impact neutral best agricultural practices' (to be adopted by the Food and Agriculture Organization FAO) is already today a serious problem for the (WTO) negotiations on domestic support for agriculture. Incidentally, the failure to reach consensus on the so-called Special Products was not only due to the level of additional safeguard duties but also to the 'trigger' allowing (all) developing countries to self-designate their special products in accordance with a time-honoured formula i.e. their 'food security, livelihood security and rural development' needs. The then envisaged but never finalised solution limited this right, including to a (still to be agreed) percentage of tariff lines.[32] This example shows, again, that unconditional climate adaptation support will not pass border discrimination tests in the WTO.

A third example showing the negative consequences of the WTO's export bias is the Doha Round negotiation result concerning international food aid. Even though cases of displacement of competitive commercial food suppliers might be successfully challengeable under AoA-Article 10 (Prevention of Circumvention of Export Subsidy Commitments), the proposals for improvements made in the 2008 'Modalities' (if adopted) might well block this possibility for redress. Moreover, and with potentially devastating consequences for local farm security, WTO seems incapable to prevent international food aid from spilling into markets where it competes with local produce.[33]

Despite these difficulties, there is no way around the fact that trade and investment relevant measures implementing the Paris Agreement must take the development dimension into account. This is not only a matter of political expediency and of correctly applying the polluter-pays-principle, but also one of historic, intergenerational and gender equity. However, looking at the map of the world's largest carbon emitters and of the widely varying financial asset endowments, an unqualified application of the SDT principle will hardly reduce global warming. For

[32] World Trade Organization, Committee on Agriculture Special Session, Revised Draft Modalities for Agriculture, para 129. WTO Doc. TN/AG/W/4/Rev.4 (6 December 2008)

[33] Simone Heri and Christian Häberli (2011), Can the World Trade Organization Ensure that Food Aid is Genuine? 1/1 *Developing World Review on Trade and Competition* 1-70. Gujarat National Law University, India.

agriculture even an organisation mainly concerned with global trade has no other choice than to differentiate according to the specific needs of regions and population segments most affected by climate change. This article submits that the old ways of applying different tariffs and (agricultural) subsidy rules at the national level will simply not suffice to address the climate change challenge.

Indeed, no special rules and allowances are made for small farmers, nomads and fishermen. Their energy and water needs and carbon emissions might be even higher, as a percentage of marketable production, than that of 'commercial' produce. Scarce attention has been paid to the importance of gender dynamics in climate change adaptation and the specific situation of women farmers, such as asset control and risk attitudes, despite the fact that this may also require specific climate-related WTO provisions.[34] But these are precisely the groups of food producers who impact trade the least, and who are often times the most negatively affected by the still massive and mostly legal 'agro-dumping' caused by Amber Box support to richer farmers.

Under the agricultural and rural development programmes in Article 6.2 AoA already referred to, developing countries are entitled to provide unlimited investment subsidies (for all farmers) or agricultural input subsidies (for low-income or resource-poor producers). Climate mitigation, again, is not mentioned in this article, and the compatibility of the measures notified under this provision with its rather intricate conditions has never been formally challenged in dispute settlement. Yet, as for the Green Box paragraph suggested in the previous section, the ill-defined nature of many such measures will have to be clarified in order to avoid new trade disputes around climate mitigation measures by developing countries.

The food security analysis and debate at the WTO on how well agricultural trade policy provides secure supplies of food had started with violently opposed 'free trade' and 'small farmer' advocates.[35] More recently it has reached a compromise of sorts where – in the terms of the WTO Secretariat – neither trade liberalisation and competitive markets, nor special safeguards and national food reserves, are presented as panaceas for global, national and household food security. For the climate change challenge, this might perhaps serve as a lesson for regulators implementing 'Paris' without throwing the present rules framework overboard.

When looking even summarily at various climate-smart measures in the next section it might be useful to envisage an across-the-board 'no more than minimal trade and production distortion' condition – instead of today's 'necessity test' – for defining the required development policy space outlined in this section.

V. Climate-smart agriculture and WTO rules

Put in layman's terms, climate change affects agricultural production when local temperatures (and sea levels) rise, when water available for irrigation dwindles,

[34] Noora Aberman (2015), Climate Change Adaptation Assets and Group-Based Approaches: Gendered Perceptions from Bangladesh, Ethiopia, Mali, and Kenya. IFPRI Discussion Paper 01412, Washington DC

[35] See, for instance, (i) WTO Website, *UN rapporteur and WTO delegates debate the right to food* (2 July 2009) at https://www.wto.org/english/news_e/news09_e/ag_02jul09_e.htm; (ii) *Debate: The right to food. UN rapporteur Dr Olivier De Schutter and WTO Director-General Pascal Lamy* (11 May 2009); (iii) *Video debate. The global food crisis: What is the role of trade? Olivier De Schutter, UN Special Rapporteur on the Right to Food, and Christian Häberli* (20 October 2008), all accessed on 15 June 2016.

and when rains fall in the wrong places and at the wrong time. Producers may have a number of different options in order to adapt. But the key question for governments, and for trade regulators, is how they can best mitigate negative impacts and assist their producers in this paradigm change.

For agricultural production, what is required for new UNFCCC and adjusted WTO rules to be useful are multilaterally agreed (and hence, binding) climate-smart best farming and processing practices. These standards could then be enshrined in the relevant multilateral environmental agreements (MEA), and protected against legal challenges in the WTO, similarly to food safety standards which otherwise threaten to block especially developing country food exports.

Generally speaking, border adjustment measures imposed on agricultural imports of assisted domestic products will be subject to scrutiny under various WTO non-discrimination rules and market access commitments. Moreover, just as for auctioning tariff-rate quotas, GHG emission pricing can conflict with scheduled tariff rates (Art. II:1b GATT). Subsidies and other incentives must not create 'adverse effects' on other WTO Members (Art. 5 SCM). What matters is whether such measures (and the level of subsidies) infringe on guaranteed market access rights (MFN/prudential carve-out[36]); at the same time emission limits and carve-outs may violate NT obligations. Deane also considers that measuring 'benefits' with market prices as a measure of 'likeness' would be problematic in this instance.[37]

Other incentives for climate-smart agricultural production policies will normally be reserved for domestic products and services, without similar support to agricultural and food imports. For instance, subsidy limits in national schedules (AMS) may affect insurance schemes e.g. for draught and flood risks, stockpile policies, credit finance, as well as for specific production methods including organic agriculture and renewable biofuels.

Still other WTO rules may hamper, or proscribe, investment and production credits offered only for local food producers; developing countries with less deep coffers or with low Amber Box limits may encourage climate-friendly transition and industrialisation with trade restrictions (TRIMS, and Art. III GATT), or with MFN-discriminatory FDI incentives. This is perhaps the biggest obstacle to climate-smart investments. This is all the more of a problem since the legal base for 'infant industry' protection, for all practical purposes, is no longer available (Art. XVIII GATT on Governmental Assistance to Economic Development).[38] Nevertheless, at least for large agricultural projects in developing countries such a formula might make more sense than the extensive tax holidays often offered to foreign or even domestic investors.

Differential CO^2 taxes and climate-friendly performance requirements could face other WTO hurdles. The same goes for compensatory measures accompanying

[36] Deane *in op.cit.supra* FN13, pp. 124s and 210s
[37] Deane *in op.cit.supra* FN13, p. 213s. See also Epps and Green *op.cit.supra* FN14, p.223ss
[38] Incidentally, the Indian solar industry might no longer qualify as an 'infant industry', as this provision is reserved for countries whose economies 'can only support low standards of living and are in the early stages of development' (Art. XVIII GATT). See Deepak Kumar Adhana (December 2015), Solar Energy Mission: Paving the Way for India's Transformational Future. 4/12 *International Journal of Advanced Research in Management and Social Sciences* 148-166

reforms safeguarding communal rights or cooperatives against treaty-enshrined rights of foreign investors.

Especially for agriculture, and besides the subsidy issue which may arise with numerous mitigation measures, the prohibition of any border protection other than through tariffs can pose problems for other instruments implementing 'Paris' commitments. This is not only a matter for tariff-like measures in support of climate-smart agriculture such as those listed in the footnote to AoA-Article 4.2.[39]

Product differentiation which under a 'Paris' perspective might make sense could require import approvals. This warrants review of the WTO Import Licensing Agreement requirements applying to so-called 'non-automatic' licenses (Art. 2).

Furthermore, the compatibility with WTO rules of biotech product admission, limitation and promotion (SPS and TBT) remains an unsolved issue for trade between many countries. The problem may also affect climate change mitigation.

Even one of the most innocuous government interventions for climate change mitigation such as consumer information on product and transport footprint through more or less mandatory labelling schemes can be problematic when foreign producers of such products see discrimination. Indeed, as shown in Table 2, at least two consumer information labelling schemes have recently failed the non-discrimination and the necessity tests under the relevant provisions in the GATT and TBT Agreements.

Table 2 – Litigation about Consumer Information Measures

Case Number	Respondent and (Short) Title	Complainant(s)	Current Status
DS381	US — Tuna II	Mexico	On 10 March 2016, Mexico requested the authorization to suspend concessions On 11 April 2016 the United States requested the revised dolphin-safe labelling standards to be considered WTO-compliant
DS384 + 386	United States — Certain Country of Origin Labelling (COOL) Requirements	Canada and Mexico	COOL legislation repealed on 18 December 2015

Source: WTO Webpage https://www.wto.org/english/tratop_e/dispu_e/dispu_subjects_index_e.htm last accessed on 15 June 2016

Finally, while export taxes and restrictions, or trade defence and balance of payments measures may rarely be 'climate-smart', this is not *eo ipso* the case for

[39] The footnote to Article 4.2 AoA, in relevant parts, reads as follows: 'quantitative import restrictions, variable import levies, minimum import prices, discretionary import licensing, non-tariff measures maintained through state-trading enterprises, voluntary export restraints, and similar border measures other than ordinary customs duties'

import standards and regulations differentiating agricultural products and services according to their climate-friendliness. This raises similar rules compatibility questions as those outlined above.

A detailed examination of the climate and trade issues flagged here would require considerable space, and interdisciplinary resources. The main issue here, however, is the question of whether the present rules offer sufficient legal security for climate-related measures in the field of agriculture. As a matter of fact, many of these measures require considerable regulatory and policy space, adjustments, and resources. While the Montreal Protocol, or CITES, contain clear regulatory injunctions for governmental action – and perhaps even for non-signatories – this is not the case for 'Paris' which commits all its signatories only to 'nationally determined contributions.' Moreover, in view of the available case law for similar action, governments are well-advised to carefully assess the WTO-compatibility of their climate change mitigation measures envisaged or implemented, especially if imported products and services might also be affected. The problem is that – just like 'Paris' – WTO rules do not prescribe 'good governance' or 'good policies.' Their only goal very simply is to protect its membership against protectionism. Also, the WTO litigation procedure is 'automatic' in the sense that when a complainant considers that its WTO rights are infringed by another member, it can and will obtain the establishment of a dispute settlement panel. Such a panel will then have to issue its findings. In turn, the Dispute Settlement Body will 'automatically' endorse these findings (except by a never-happened consensual rejection) and thus allow the complainant to obtain enforcement, if need be by recourse to the so-called retaliation procedure involving a 'withdrawal of concessions.'

The WTO thus has no rules for good governance by its members. All national measures can be challenged by any concerned Member, and those not in conformity with the agreed rules and market access commitments face the possibility of being reversed or otherwise sanctioned – unless they are found to be directly based on binding public international law. Recent case law indicates that for WTO adjudicators the exact nature of such standards matters very much for climate-relevant issues such as indigenous people, biodiversity or animal welfare.[40]

Of course, the above-mentioned exceptions may actually protect wrongly incriminated measures. For regulators to be on a safer side, it would be better to obtain a climate-friendly rule interpretation in a decision of the General Council as the supreme body of the organisation. However, the record shows that the exceptions hardly ever work. As for General Council decisions, they have been taken only in exceptional circumstances e.g. for conditional access to patented medicines (TRIPS amendment), or to protect import prohibitions of so-called conflict diamonds (time-limited waiver). Lastly, a waiver may be requested, and granted by the General Council at a qualified majority to any individual Member proposing to avail itself of otherwise WTO-incompatible mitigation measures.

In fact, the safest but also the most arduous solution would seem to be a package of rules modifications. Table 3 in the concluding section lists a number of

[40] This rather restrictive view is based on my Working Paper 'Seals and the Need for more Deference to Vienna by WTO Adjudicators' written for the Fourth Biennial Global Conference of the Society of International Economic Law. SIEL WP No 22 (8 July 2014)

possibilities *de lege ferenda* to adjust certain WTO rules with a view to allowing all or certain WTO Members to take a number of climate-smart mitigation measures without an infringement of WTO rules.

The Paris Agreement is only a few months old. Obtaining legal security for implementation in trade-relevant sectors is a long process by all standards, but definitely longer than the time period foreseen for governmental action, including technology transfer, financing and reporting. Meanwhile, insecurity hampers and impedes many such efforts.

VI. Conclusions: new climate-specific trade and investment rules for agriculture, water, and aquaculture?

This initial analysis of the WTO rules potentially relevant for climate change mitigation measures shows that basically all such measures are likely to differentiate according to their footprint or other criteria, and that many of them directly or indirectly impact on trade and investment. As for subsidies and other incentives, most measures examined distinguish between domestic and foreign goods and services, whereas border measures face the difficult challenge to not violating national treatment.

To summarise, discrimination follows differentiation. It is implicit in all subsidies and other incentives offered eclusively to climate-friendly investments and operations. It may also appear in border measures compensating disadvantages for domestic producers resulting from carbon emission limitations, or of prohibitions of certain energy sources. As for the services component of emission trading schemes, this may be limited to domestic services providers and may then violate specific services commitments of WTO Members.

Self-discrimination, obviously, is no problem under WTO rules. Countries rich or generous enough to limit GHG at home without applying the same limits to imports will not face complaints by the WTO membership. Actually, even a 'coalition of the willing' agreeing on ambitious carbon emission reductions could face legal challenges by non-participating WTO Members claiming market access losses. As evidenced by the above case law, 'nudging' and 'shaming' seem to work little nowadays, at least when serious trade impacts are at stake.

Moreover, the CBDRRC principle of 'common but differentiated responsibilities' enshrined in the Paris Agreement encompasses different obligations and implementation measures. Yet, in WTO terms, and case law, this does not allow for trade-restrictive investment promotion of climate-friendly technologies like solar panels, for instance.

For agriculture, some climate-smart measures such as irrigation or insurance scheme subsidies are likely to face similar problems as those identified for renewable energies and emission trading. The same goes for support to small farmers in disadvantaged regions, to renewable biofuels in arid areas, or to large-scale agricultural projects in appropriate regions.

Clearly, legal security for climate action by way of trade or investment-relevant measures is not available *de lege lata* i.e. under the present regulatory framework of the WTO (and, for aviation services, of the Chicago Convention). As pointed out by Deane 'it is vital that Members clarify how WTO law regulates

these emissions trading schemes and, even more fundamentally, if it is the role of WTO law to regulate them at all.'[41]

The previous sections have shown a number of avenues where specific rules adjustments might temperate the WTO's basic prohibition of product and services differentiation according to footprint impact. Similarly, the available SDT provisions hardly offer any solution for agricultural policies in poor developing countries with rapidly increasing temperatures. Table 3 hereafter summarises these preliminary proposals listed by each relevant WTO agreement.[42] This is admittedly a very long list. However, it does indicate the need for reflection and cooperation within and between national and international agencies, together with operators, non-governmental organisations and academia.

Table 3 – WTO Rule Adjustments Allowing Climate Action

WTO Agreements	**Adjustment Proposals for Consideration** **Rules to be made available**	
	(i) for all WTO Members	**(ii) only for poor developing countries and measures without more than a minimal trade impact**
AoA	Annex 2 ('Green Box') to add a paragraph 14 allowing for climate mitigation support measures based on internationally recognised standards (e.g. best agricultural practices) and at levels with no more than a minimal impact on trade and production.	Art. 6.2 (Developing Country Green Box) to be available for climate-friendly investments and certain agricultural input subsidies for low-income or resource-poor producers.
ADP	Anti-dumping disallowed for internationally recognised climate-smart action as long as a subsidy or other incentive to a given product from a particular exporting country does not over-compensate the additional production costs due to the climate-smart action at issue. Anti-dumping is also disallowed where the importing country applies an equivalent climate-smart measure.	
DSU	Adjudicators to consider context and customary international law (as per Art. 31 VCLT) and not to rule out Paris Agreement implementation measures where the underlying climate change mitigation objective cannot be attained otherwise than with a minimal trade distortion.	
GATT	1. No WTO rules shall be construed to prevent the adoption or en-	Reintroduce clearly defined infant industry protection for

[41] Deane *op.cit.supra* FN13 p. 10
[42] See Table 4 in the Annex for the names of these agreements

	forcement of measures necessary for implementing the Paris Agreement (e.g. for the internalisation of carbon emission costs). WTO Members shall benefit from a new provision in GATT-Article XX (lit. k), subject to the provisions in the chapeau of Article XX, and taking into consideration the above-suggested DSU modification (establishing 'necessity'). 2. GHG emission pricing schemes and 'other duties or charges' levied on non-climate-smart imports may exceed scheduled tariff rates (Art. II:1(b) GATT).	climate-friendly start-ups in poor developing countries (Art. XVIII GATT).
GATS	1. Foreign agricultural service suppliers may invoke their MFN and NT rights under Articles II and XVII only if their climate-impacting performance is at least equivalent to that required of domestic service suppliers. 2. Same condition to apply *mutatis mutandis* to claims in respect of scheduled commitments by individual members in specific sectors e.g. for restrictions of the total value of service transactions or assets. 3. Article XIV (General Exceptions) to be modified like Article XX GATT.	Review the (generally low) specific services commitments of poor developing countries under GATS-Articles XVI – XVIII.
GPA	Entities covered by this Agreement may apply internationally recognised climate standards and best agricultural practices for products or services procurement (e.g. equivalent footprint requirements).	For climate-friendly products and services procurement, Article V (Special and Differential Treatment for Developing Countries) shall be available for poor developing countries only.
LIC	Import approvals and controls for climate-related regulations based on international standards and best agricultural practices to be 'automatic' import licenses i.e. assumed not to have trade restrictive effects (Art. 2).	
NFIDC Decision		Negative effects of climate adjustment measures on NFIDC trade entitles them to support by countries implementing such measures.
PSI		Import controls by way of preshipment inspection of climate-friendly goods and services to be facilitated with the support of the importing country.
RoO	Pending the long-term harmonization of non-preferential rules of origin, the rules of origin for environmental goods and services should be based	

	on a positive standard (rather than stating what does not confer origin).	
Safeguards	Clearly climate-related prudential carve-outs e.g. for financial services to be shielded from safeguard complaints.	Review the justification for developing country rights to extend the period of application of a climate-related safeguard measure for a period of (presently) only two years beyond the normal maximum.
Schedules	Principal suppliers and suppliers with substantial trade interests to favourably consider requests for bound tariff increases for climate-sensitive goods (and other duties and charges applying to 'like' products), and proposals for substantially equivalent concessions initially negotiated with the applicant Member under Article XXVIII GATT.	
SCM	1. Agricultural subsidies and other incentives provided in the context of the Paris Agreement implementation shall be assumed, under the SCM Agreement, to not have 'adverse effects' on other WTO Members as long as they are clearly based on internationally recognised standards (e.g. best agricultural practices). 2. Consumer subsidies and import substitution subsidies for climate-friendly products could be challenged as actionable subsidies under the SCM Agreement (and countervailed if there are exports) only if they involve trade restrictions.[43] 3. Fisheries (and shipping) subsidy rules may require specific adjustments.	1. Measures taken to implement the Technology Mechanism under the Paris Agreement (Art. 9) to be considered SCM-compatible. 2. Climate-exposed small fishermen and aquaculture in poor countries to benefit from Article 6.2 AoA.
SPS	WHO recommendations for climate-smart health policies to be considered SPS-compatible, like the standards laid down for agricultural trade by the Codex alimentarius, IPPC and OIE (Art. 3.4 and Annex A para 3 SPS).	
TBT	Provided treatment is granted to foreign products no less favourable than that accorded to like products of national origin and to like products originating in any other country: 1. Climate-related conformity assessment procedures, and requirements for quantification and	

[43] Cf. Alan O. Sykes, The Limited Economic Case for Subsidies Regulation. ICTSD and World Economic Forum, Geneva, 2015

	reporting of greenhouse gas emissions and reductions based e.g. on relevant ISO standards, to be assumed to fulfil a legitimate objective in the sense of Article 2.2 TBT. 2. Labelling of climate-sensitive products and best agricultural practices to be assumed to fulfil a legitimate objective in the sense of Article 2.2 TBT.	
TRIMS		Poor developing countries to benefit from a time-limited right to restrict trade as an incentive for climate-friendly investment promotion.
TRIPS		Measures taken to implement the Technology Mechanism under the Paris Agreement (Art. 10) to be considered TRIPS-compatible.
TFA	Disciplines e.g. for enhanced controls or inspections (Art. 5.1) to apply to 'Paris' implementation measures.	
VAL		Provisions relevant to developing countries and relating to minimum values and importations by sole agents, sole distributors and sole dealers to also apply to product differentiation necessary for the Paris Agreement implementation.

Source: Author, unless otherwise indicated

It will also be noted that the climate mitigation 'tool box' underlying this table is not comprehensive. Issues not listed include state owned enterprises, international food aid and food reserve management. Their implications for WTO agricultural support disciplines are part of the Doha Development Agenda, as specified at the Tenth Ministerial Conference (Nairobi, December 2015).[44] Moreover, issues like export competition and stockpiles[45] are now part of the work programme of the Committee on Agriculture. Clearly, the significance of instruments for risk insurance and management may increase in the wake of the Paris Agreement. This, however, only enhances the importance of better interaction between climate and trade rule-making.

More generally, and by way of suggestions for the future, a work programme for a thorough examination of all climate-relevant WTO rules should be adopted by the trade community in cooperation with climate experts and interested stakeholders. An inter-Secretariat proposal for such work would initiate and accelerate

[44] ICTSD (2016), *Evaluating Nairobi: What Does the Outcome Mean for Trade in Food and Farm Goods?* Eds. Hepburn, J, and Bellmann, C. ICTSD Programme on Agricultural Trade and Sustainable Development; International Centre for Trade and Sustainable Development, Geneva, Switzerland, www.ictsd.org

[45] Christian Häberli (June 2014) After Bali: WTO Rules Applying to Public Food Reserves. FAO Commodity and Trade Policy Research Working Paper No.46

this process, with the possibility for academics and interested parties to provide advice and case-based contributions.

The adjustment proposals resulting from these deliberations might present major difficulties for the WTO membership. Will Members negotiate or litigate? Based on the available, albeit very limited case law, the assumption in this author's opinion and experience is that only agreed outcomes of this process can allow the highly ambitious, yet still imprecise and binding Paris Agreement to reach its objective.

In any event, doing nothing is not an option for the signatories of the Paris Agreement: climate change – if it continues according to scientific forecasts – impacts everyone everywhere. It might also exacerbate the already serious collateral damage inflicted by the present multilateral rules framework, especially on poor countries, and drive poor smallholders out of business even faster.

Annex

Table 4 – Selective List of Climate-Relevant WTO Agreements

Acronym	Title
AoA	Agreement on Agriculture
ADP	Agreement on Implementation of Article VI (Anti-dumping)
DSU	Understanding on Rules and Procedures Governing the Settlement of Disputes
GATT	General Agreement on Tariffs and Trade 1994
GATS	General Agreement on Trade in Services 1994
GPA	Agreement on Government Procurement
LIC	Agreement on Import Licensing Procedures
NFIDC Decision	Decision on Measures Concerning the Possible Negative Effects of the Reform Programme on Least-Developed and Net Food-Importing Developing Countries
PSI	Agreement on Preshipment Inspection
RoO	Agreement on Rules of Origin
Safeg	Agreement on Safeguards
Schedules	Geneva (1995) Protocol to the General Agreement on Tariffs and Trade 1994
SCM	Agreement on Subsidies and Countervailing Measures
SPS	Agreement on Sanitary and Phytosanitary Measures
TBT	Agreement on Technical Barriers to Trade
TRIMS	Agreement on Trade Related Aspects of Investment Measures
TRIPS	Agreement on Trade-Related Aspects of Intellectual Property Rights
TFA	Agreement on Trade Facilitation (2014)
VAL	Agreement on Implementation of Article VII (Customs Valuation)

Source: Author's own tabulation

List of Tables