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Analysis and news on trade and environment

VOLUME 9, ISSUE 10 – DECEMBER 2015



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CLIMATE TECHNOLOGIES

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EMISSIONS TRADING SCHEMES

UN carbon rules past, present, and future



International Centre for Trade
and Sustainable Development

BIORES

VOLUME 9, ISSUE 10 – DECEMBER 2015

BRIDGES TRADE BIORES

The leading authority on news and analysis emerging from the trade and environment nexus.

PUBLISHED BY

ICTSD

International Centre for Trade and Sustainable Development

Geneva, Switzerland

www.ictsd.org

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Building a new climate regime in a global economy



Negotiators from nearly 200 nations, in total numbering up to 20,000 representatives flanked by nearly as many supporters from civil society, have arrived in Paris, France to tackle a herculean-like task. By the end of the Twenty-first Conference of the Parties to the UN Framework Convention on Climate Change (UNFCCC COP21) in mid-December, officials will need to have laid the foundation for a new climate regime, set to come into force at the end of the decade when the current Kyoto Protocol expires. In preparation for the meet, parties have in the past year outlined a 54-page document containing a myriad of options for the new regime's arrangements, captured as a draft agreement and accompanying implementing decisions. Work on streamlining these in the coming days will be tough, complex, and absolutely pivotal for future multilateral cooperation on climate change.

The new deal is already set to have several distinguishing features compared to the Kyoto Protocol. It will be universal in coverage – rather than focusing on industrialised countries only – and it will be based on self-determined national climate action instead of allocated emissions reduction targets. By the time of writing nearly 170 of these have been put forward by countries responsible for over 90 percent of global emissions.

These points are now well-versed by climate watchers but the new dynamics will take time to digest. The shift in the UNFCCC talks may offer an interesting case for other international processes, and it will have implications for the trade and investment communities, as explored by our two lead articles in this latest BioRes edition. First up, Henry Derwent provides an overview of some of the “fears” long-whispered in UNFCCC corridors about the relationship between greenhouse gas mitigation policies and the global trading system rules and dynamics, alongside recommendations for what might ideally need to change in the years ahead.

Next, ICTSD's Ingrid Jegou takes a look at the evolution of the relationship between trade and climate change policies and processes, and reflects on the game changing aspects of the new regime and potential implications for trade governance. A key message here is that the global economy can be a critical part of the solution to climate change with the right alignment of policies. The 1992 UNFCCC founding text stipulates parties should promote an open international economic system that will lead to growth and that climate measures should not be a means of discrimination or a disguised restriction on international trade. How will the new regime address and harness these principles?

We want to hear from you! As in previous years BioRes, along with ICTSD's flagship publication Bridges, will provide reporting services from both the COP21 and MC10. Make sure to [subscribe](#) to our email service here for the latest news delivered straight to your inbox. You can also follow our social networking streams on [Twitter](#) and [Facebook](#) to keep up with our breaking trade and environment news updates.

UNFCCC

What has climate to fear from trade?

Henry Derwent

This article provides a rough guide to the collective reflections of the climate community on the relationship between mitigation and the multilateral trade regime.

Climate is, in economic terms, an externality. The pursuit of conventional economic growth, particularly through production and energy processes, can cause incremental changes to the biosphere that are not directly willed. Moreover, even if these biosphere changes and impacts generate a cost, these are usually not felt or are perceived extremely weakly by the relevant economic actors in comparison to the benefits of economic action. While new non-polluting production processes may well eventually be discovered, a change in global economic values reducing demand for energy and greenhouse gas (GHG)-intensive production of goods might occur, and consumer demand might become sensitive to GHG footprints of goods and services, it is nonetheless unrealistic to expect revolutionary changes for these factors in the short term.

Reducing GHG pollution and climate impacts is economically inefficient from the perspective of most individual economic actors. However, if legal obligations are created and enforced to bind on all relevant actors, then this problem should not exist. The “tragedy of the commons” will be avoided by the action of a superior power capable of constraining all those who consume the commons. No economic actors will welcome the cost imposition but at least the legal obligation will seem fair.

However, where some potential commercial rivals are outside the reach of those legal obligations, there will inevitably be “free riders” unless governments or other creators of the relevant legal obligations act in coordination. The great majority of legal obligations are imposed and enforced at the level of national or regional governments. Economic activities between, rather than within, these national or regional units constitute international trade itself governed at the multilateral level by the WTO. Thus economic actors fearful of free riders undercutting their competitive position by avoiding costs imposed on the “home team” will look carefully at relevant WTO rules. If free riding on climate costs is not prevented by those rules, expect trouble.

And this is not only a question of competitiveness. The world's atmosphere is a single unit even if its governments are not, so measures that simply have the effect of moving emissions from one government's jurisdiction to another – a process often described as carbon leakage – are ultimately pointless, whatever they do to the terms of trade.

The carbon leakage problem

The UN Framework Convention on Climate Change (UNFCCC) represents the major multilateral forum for international coordination of climate policies giving rise to legal obligations. However, it is in principle weaker than the WTO, its members are arguably less united about its objectives, it is often perceived as unfair in its approach to cost comparability, has little enforcement capability, and has failed to have much practical impact. Many economic and climate observers also saw the withdrawal of the EU from its climate-driven attempts to impose common levels of cost in international aviation at the 2013 International Civil Aviation Organization (ICAO) Council as a significant indication that trade objectives will beat climate ones in the push and pull of international policymaking.

So from the perspective of many climate – and business – stakeholders, the edifice of global control over GHG emissions can only stand if there is a system preventing international imports escaping from national cost impositions to reduce emissions, and

allowing exporters to remove those costs where they compete against those who do not have to bear them. Logically, in the absence of a strong UNFCCC, the guardian of that system could only be the WTO.

Is competitiveness really so important?

Plenty of stakeholders strongly object to the idea that serious government action to reduce GHG emissions will just not happen without firm safeguards against changes in business competitiveness. The first objection often raised is that changes to a company's international competitiveness from domestic climate actions and their costs are a myth. There is a background of constant changes to absolute and relative costs of many different key factors of production and the naturally varying factors of geography, history, skill levels, and intellectual property. Few if any accredited and peer-reviewed examples can be found of changes in cost created by climate action clearly affecting the location or quantum of production of relevant goods and services. But this point tends to be met by responses that have raw political force. First, representatives of companies and industries can say they understand the true reasons for their locational and production decisions better than anyone else. Second, even if few examples of company closures due to relocations can be found at current levels of cost associated with regulation, the increases in prices which the climate community says are needed could change the position entirely. Third, it stands to reason that increasing costs to any extent at all when competitiveness is balanced on a knife-edge risks tipping the situation into a loss, with consequences that cannot be recovered.

The second objection looks at the position from the perspective of national competitiveness. Even if it is true that certain companies will be adversely affected, the impact on national prosperity as a whole will be lost in the constant noise of changes, growth, and decline in comparative advantage. Moreover, if the impact is that high carbon industries will be removed, surely that should be accepted as a desirable outcome, and one which may make the national economy more fit for an inevitable low carbon global future. The problem here is the iron law of politics that makes the complaints of the incumbents who would lose out ring louder than support from less powerful or not fully-formed potential beneficiaries.

The third objection is that the history of social progress is one of government imposition of costs on business. Petty considerations of commercial or national advantage forgone have not been enough to prevent action in other fields, so there is no reason why they should be decisive in the face of the global emergency of climate change. Unfortunately, the reason that the economic consequences of these changes were eventually set aside was the political demand from voters and the changing moral environment, which grew strong enough to overcome the economic interests in the status quo; something that has not yet sufficiently manifested itself in the climate context yet for whatever reason.

Common but differentiated responsibilities

One major challenge to the carbon leakage and competitiveness approach is that the UNFCCC was founded on the principle of common but differentiated responsibilities (CBDR). By signing the UNFCCC the developed world accepted it would bear costs over developing countries, tipping international competitiveness in their favour. Even under forthcoming changes to the CBDR system to graduate the difference between developed and developing countries, the principle of a tilted playing field remains, and is highly sensitive. Other features of the UNFCCC founding documents and political landscape suggest that developed countries have no business trying to manipulate or avoid normal world trade rules to protect themselves from this economic consequence, and must take into consideration the impacts on international trade of their climate mitigation "response measures," even if these are alterations in underlying demand rather than specific alterations to the terms of trade. Whatever the logic of these arguments, developed country businesses tend, particularly since the global financial downturn of 2008, to reject them or limit them severely, and most developed country politicians have not been willing to defend them in the face of national economic concerns. And so while the climate community may treat the initial competitiveness arguments from business and

Trade in the UNFCCC

The founding text of the UN Framework Convention on Climate Change (UNFCCC) stipulates that parties "should cooperate to promote a supportive and open economic system that would lead to sustainable economic growth and development" in all nations, particularly developing countries, in order them to better help tackle climate change. Measures taken to address climate change should not constitute a means of arbitrary or unjustifiable discrimination or a disguised restriction on international trade.

their responses to the counter-arguments with disdain or disbelief, many also recognise these as a fact of national political life, and understand that some way has to be found to deal with them.

Levelling up

It is generally accepted that there are three broad paths available to achieve a "levelling up," in other words, ensuring that no third party accrues economic benefits by not taking substantive climate action. These are reducing the national costs of climate change action; globalising the costs of climate change action; and adding or reducing costs of particular flows of goods and services at the border to accord with the treatment of those goods and services in the target market. Reducing the national costs has been the most popular approach so far. Industries regarded as "trade exposed" in an environment where key international competitors have no obvious climate costs are granted some form of exception from the application of costs under national climate policies, typically by exempting them from the cost of purchase of national or regional emissions permits. But immediately potential WTO warning signs begin to flash. Derogations from national regimes purely to increase the competitiveness of national industries in international trade are prima facie illegal. The calculation of the "appropriate" level of climate cost coverage in other countries and the compensatory costs, exemptions, or subsidies for different industries and products is likely to be extremely complex and contentious. However there are some examples of rough-justice calculations of thresholds, costs, and benefits used in the EU Emissions Trading Scheme (ETS) and in other spheres, such as tax determinations, that could offer precedents.

The second path is international coordination of the application of climate costs. In essence, this is the approach of the UNFCCC, with the important proviso that the CBDR principle ensures that coordination does not have to mean harmonisation. Costs introduced in pursuit of UNFCCC obligations are a long way from harmonisation, in particular, the progress towards an international carbon market with global pricing for emissions reductions has stalled and perhaps for a very long time. Smaller groups of countries, coming together outside the UNFCCC framework to harmonise prices and treat imports from and exports to non-club members on a common basis, are obviously a second best option but again this lights up WTO warning signs. In the absence of clearly justified exemptions in international trade legislation, it is an obvious instance of departure from the most-favoured nation principle, and without the protection of conformity to a UN-administered, multilaterally agreed regime it could look anomalous in trade law terms. In principle, the coordination could happen voluntarily within international trade associations or business groups rather than between governments; but the patchy and constrained public interest motivation that usually characterises businesses, and the difficulty of within-industry sanctions to ensure comprehensive coverage and enforcement systems even at the national level, are problems in principle for confidence in business action.

Adding or reducing costs at the border through border adjustment measures (BAMs) is the third path and now discussed increasingly frequently. Nevertheless, there are obvious difficulties in choosing and justifying the precise cost level, particularly for products with complex supply chains. Moreover, any form of special taxes or their equivalent on imports and exemptions for exports, once again lights up warning indicators. There appears to be ambiguity about the WTO status of taxes imposed on energy content. From the perspective of the climate community, therefore, all three ways of levelling the playing field look difficult and potentially dangerous in WTO terms.

Environmental goods and services

Another trade-related approach is the favouring of environmentally friendly goods and services against high carbon alternatives. Suspicions that definitions of "environmentally friendly" are being rigged to favour domestic industries can, however, quickly arise. The recent plurilateral initiative towards an Environmental Goods Agreement (EGA) involves 17 WTO members, counting the 28-nation EU as one, and may lead to effective action on tariff reduction. But for serious inroads to be made into the conventional economic superiority of high carbon, the notion of "environmentally friendly" has to be extended to

include goods and service whose production processes and supply chain are low carbon compared to some alternatives. This pitches climate objectives against the conventional WTO concept of "like products," since high carbon and low carbon production processes generally leave no impact on the final product itself, and at present have only niche effect on consumer preferences.

Sanctions

The third, most contentious, approach involves trade sanctions against countries failing to take adequate or appropriate domestic measures against GHG emissions. Merely skimming the surface of a complex and highly charged subject, it is safe to say that the justification of trade sanctions proposed for whatever reason, tends to be problematic. But provisions for trade sanctions do exist under multilateral environmental agreements. The most frequently cited example being the Montreal Protocol on ozone-depleting substances, whose mixture of financial aid and trade sanctions is believed to be responsible for its success, and frequently leads the climate community to question why similar approaches cannot be made to work for GHG emissions.

The most important reason for the difference is that the parties to the Montreal Protocol agreed specifically on a regime with a trade component and the parties to the UNFCCC did not. Indeed the careful protection, within the latter, of the existing trade regime and its norms has already been noted. However, from the climate community perspective, it is arguable that a climate regime without effective sanctions has proved not to work. While the world hopes that a bottom-up system can emerge from the pivotal Conference of the Parties (COP) in Paris, France, and create a good peer-reviewed system for the delivery of independent national emissions reduction targets, very few believe that acceptable global targets will be met as a consequence in the immediate future. Perhaps the world may have to come back to sanctions at some stage in the future.

What needs to change, at least ideally?

On the basis of a wholly non-professional understanding of WTO instruments and jurisprudence, the following issues certainly seem to need to be seriously debated. First, the ambiguities in the WTO General Agreement on Tariffs and Trade (GATT) Article XX need to be removed – specifically the words "unjustifiable" and "arbitrary" in the chapeau – and the place of global climate protection assured in clause (b)'s "necessary to protect human, animal and plant life and health" and clause (g)'s "relating to the conservation of exhaustible natural resources." Second, the inclusion of the atmosphere in the definition of the conservation of exhaustible natural resources needs to be seriously debated. Next, subsidies and procurement practices commensurate with the promotion of domestic low carbon energy sources and production processes should be specifically authorised as a policy option. The principle of most-favoured nation treatment should also allow a derogation for distinctions based on evidence and defensible differences in national control of GHG emissions, taking into account historic responsibilities and capabilities. Finally, specific provision should be made to ensure that smartly-designed BAMs are treated as legitimate national tax measures, applicable to imports as well as domestic production.

However, even if the arguments in favour of these changes are accepted, there is at present no politically realistic prospectus for comprehensive amendment of global trade legislation or a revised approach to trade in international climate policy. More indirect approaches, via declarations, guidelines, or the development of jurisprudence, are more likely to work, even at the expense of long processes and uncertain outcomes when the urgency of climate action is mounting.

More details on the ideas outlined in this article can be found in a longer research piece published by the E15Initiative: [What has climate to fear from trade? Implemented jointly by ICTSD and the World Economic Forum, the E15Initiative convenes world-class experts and institutions to generate strategic analysis and recommendations for government, business, and civil society geared towards strengthening the global trade and investment system for sustainable development.](#)



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CLIMATE CHANGE

Taking stock of evolutions in the trade and climate relationship

Ingrid Jegou

What are the links between trade and climate change? How has the relationship between these two policy areas changed over the years?

Parties to the UN Framework Convention on Climate Change (UNFCCC) have kicked off their annual negotiations, this time in Paris, France. Countries have agreed to hammer out a new climate regime by the time the meeting closes, geared to take over upon expiry of the current Kyoto Protocol at the end of the decade, and capable of keeping the planet below a two degree Celsius rise from pre-industrial levels. Momentum building up to the talks from the international community, business, and civil society has been strong. However, while this might augur well for a positive result, delegates from nearly 200 nations still have a lot of work to undertake in the next fortnight to deliver a "Paris agreement." In particular, negotiators must navigate a complex draft text with various options for each part of deal, which will cover areas such as mitigation, adaptation and loss and damage, finance, technology development and transfer, among others.

In contrast to the Kyoto Protocol, which only mandates emissions-cuts from a pre-defined list of developed countries, UNFCCC parties agreed in 2011 in Durban, South Africa that the new deal would be universally applicable. At last year's meeting in Lima, Peru, parties confirmed this shift, calling on all countries to outline at least a mitigation component in their "intended nationally determined contribution" (INDC). Governments had earlier said that these self-defined INDCs should form the basis of the agreement. These developments have necessarily sparked new dynamics, tensions, and questions within the UNFCCC negotiating corridors, as well as reflection on how to translate the principles of the 1992 Convention into new climate governance arrangements. Many others in the international community, too, are waiting to see what Paris might deliver and whether it will be enough to tackle the climate challenge at hand. A recent UNFCCC review of the aggregate contribution made by the INDCs to date – which mostly target cuts for the 2020-2030 period – finds that global emissions would remain between 11-22 percent higher in 2030 compared to 2010 levels.

The remainder of this article looks at key ways the UN climate talks have evolved since the world's last effort to secure a global climate pact in 2009 in Copenhagen, Denmark, with an emphasis on the trade-relevant parts. It also provides some insights on the intersections between the multilateral trade and climate regimes and where trade policy might be used to help the world shift towards a low-carbon future.

What has changed since 2009?

Conversations among stakeholders have noticeably evolved since the UNFCCC gathering in the Danish capital. For several years following that meeting, a lot of effort was dedicated to getting the multilateral climate process up to speed again, which meant that negotiators were to some extent distracted from the main task of getting down to solving the problem posed by high-carbon growth models. There was a real loss of faith in the UN process that ultimately needed some time to fix.

The current phase of the talks now seems actually more focused on delivering mitigation action and with more of a sense of urgency. The shift from the former parallel tracks known as the Ad Hoc Working Group on Further Commitments for Annex I Parties under the Kyoto Protocol (AWG-KP) set up in 2005 and the "Ad Hoc Working Group on Long-term Cooperative Action under the Convention (AWG-LCA)" established in 2008 to

one consolidated Ad Hoc Working Group on the Durban Platform for Enhanced Action (ADP) in 2011 with a clear mandate to develop an agreement with legal force under the Convention applicable to all parties by this December has made the multilateral negotiations somewhat clearer and more targeted.

Another evolution in the last six years has been around carbon pricing. Prior to Copenhagen many experts had called for a "global price on carbon" as the best response to climate change by capturing the external costs wrought by emissions that are not necessarily directly factored into the production and consumption costs. After 2009 the concept of a global carbon price went somewhat out of fashion as it was simply out of reach. In parallel the climate community increasingly started to talk about and design other possible mitigation policy options. Interestingly, the carbon pricing concept is now back in vogue, although this time it is being seen in a broader context of a range of necessary policies and no longer as the only solution. There has also been a move away from an idea of a universal carbon price, in favour of a reality in which we will see differentiated prices between countries and regions, and in this sense the idea clearly has matured. A report from the World Bank, for example, finds that existing carbon prices in various schemes range from less than US\$1 per tonne of carbon dioxide equivalent (CO₂e) emitted under Mexico or Poland's carbon tax through to US\$130 per tonne of CO₂e for Sweden's carbon tax.

When it comes to competitiveness concerns, often raised in relation to carbon pricing, these would not be fully addressed by differentiated carbon pricing. However, there is research indicating that even a low price is capable of inducing behavioural change, and would thus to some extent help alleged competitiveness distortions. And after all, a low carbon price is likely to be preferred over no carbon price, also for competitiveness reasons. The private sector too is now more involved in this latest resurgence of interest in carbon pricing with many companies either integrating carbon costs into their business model, using shadow carbon prices, or joining calls for a greater uptake of such policies.

Overall, compared to a few years ago, it seems as if there is a greater economy-wide mobilisation towards working on solving the climate challenge. Many, of course, still question whether the multilateral system is really going to deliver an effective agreement. There is a recognition too now that action through the UN alone is not enough. This has manifested in the interesting launch of the "Lima-Paris Action Agenda" designed to account for climate contributions made by non-state entities, many of whom are key economic actors, and therefore helping to build a bridge between commercial and climate concerns. Whereas this is clearly a positive development, questions remain with respect to accounting, and accountability. How to ensure that the same pledge will not be counted more than once, indicating a stronger mitigation effort than what is actually planned? And how to hold actors, in particular non-state players, accountable to their pledges? Answers given by the UNFCCC so far are not convincing.

Whither climate and global economic, trade governance?

A growing body of literature is attempting to understand the economic impacts and consequences of climate change. A new report from the OECD, for example, finds that a temperature rise of four degrees Celsius above pre-industrial levels could hurt GDP between 2-10 percent by the end of the century relative to a no-damage baseline scenario. Despite this important connection the links between trade – a key driver of the global economy – and the UN climate regime to date have been fairly limited. Article 3 of Convention does refer to the need to cooperate to promote a supportive and open international economic system that would lead to the sustainable economic growth and development of all parties. The same paragraph also stipulates that measures taken to tackle climate change, including "unilateral efforts" at the domestic level, should not constitute a means of arbitrary or unjustifiable discrimination or a disguised restriction on international trade. However, although this article is often referred to in a general sense, few specific conceptual discussions have been had on its full implications from a systemic perspective.

Key dates

1998 An Intergovernmental Panel on Climate Change (IPCC) set up to provide scientific insights into international negotiations

1992 UN Framework Convention on Climate Change (UNFCCC) established to guide an international response to climate change

1995 Negotiations geared towards strengthening emissions reductions launched under the UNFCCC

1997 UNFCCC parties agree to the Kyoto Protocol legally binding a group of developed countries to emissions reduction targets. The Protocol's first commitment period ran from 2008-2012, after it entered into force in 2005, and the second commitment period should span 2013-2020

2009 Difficult talks in Copenhagen, Denmark lead to a political agreement calling on participating countries to pledge actions to reduce emissions. Many climate observers dub the meeting a failure for not reaching a more comprehensive, binding, or ambitious arrangement

2011 UNFCCC parties agree in Durban, South Africa to launch a process to develop a protocol, another legal instrument, or an agreed outcome with legal force by no later than 2015. The deal will apply to all parties

2015 UNFCCC parties gather for the Twenty-first Conference of the Parties (COP21) in Paris, France to hammer out details for a new climate regime to come into effect at the end of the decade

There are nonetheless a few pockets within the talks where more specific trade topics might be usefully fitted into the climate action agenda. Negotiations have been ongoing over the years under the UNFCCC's subsidiary bodies – charged with implementing and providing scientific and technological advice for the current climate regime – on addressing the impact of the implementation of "response measures" or the actions parties take to tackle climate change.

Article 4.8 of the Convention specifies that parties should give full consideration to necessary actions required to meet the needs of developing countries arising from the adverse effects of climate change and/or the impact of the implementation of response measures. Article 2.3 of the Kyoto Protocol, meanwhile, specifies that when meeting emissions reduction targets parties should strive to minimise any adverse effects, including on international trade, as well as social, environmental, and economic impacts on other parties and particularly developing nations.

Talks on response measures within the UNFCCC have proved tricky. A mandate for a two-year forum designed to discuss various issues expired in 2013 and parties have since been in the process of trying to figure out how to address response measures moving forward. Although the topic could see some progress in Paris, the concept remains quite controversial, for various historic reasons such as the perception that this is a platform to compensate economies highly dependent on fossil-fuel exports from losing out too much.

In an ideal world some sort of new response measures platform could be used for reviewing climate policies and their impact on various key areas of economic activity, particularly in context of a climate architecture with universal action on the one hand, driven by self-determined domestic policies on the other hand. Since the response measures forum so far has been unable to address these issues in a holistic manner, due to its inherently thorny nature, perhaps such an exercise might be usefully transposed into a review of the INDCs that many parties have now signalled could be an important part of the Paris deal.

Another trade and climate link that has gained attention over the years is around carbon markets. By putting a price on carbon, and with increasing use by jurisdictions around the world, these can help to reduce competitiveness concerns stemming from different levels of mitigation ambition. Talks on establishing global norms for market-based and non-market based mechanisms – which would in theory cover international emissions trading – have nevertheless also proved slow in the UNFCCC's subsidiary bodies.

The current draft text for the new post-2020 regime contains a few proposals on this front but overall a number of experts agree that the spread of carbon markets will likely occur regardless of the UNFCCC process. The Paris deal could provide a useful "hook" with agreement on certain standards to establish comparability, avoid double counting, and have some sort of standard for international transfers to make sure a tonne is a tonne no matter where it is abated, but without having to resolve the whole design issue around a global carbon market.

"International bunker fuels," the emissions from fuel used for international aviation and maritime transport, are another area of intersection between trade and climate change. While the Kyoto Protocol addresses this issue in Article 2.2 suggesting that developed countries shall pursue limitation or reduction of emissions of greenhouse gas emissions from aviation and marine bunker fuels, working through International Civil Aviation Organization (ICAO) and the International Maritime Organization (IMO) respectively, the issue has not really been taken up as much in the climate talks.

Yet this is an area in the trade-climate intersection where efforts need to be scaled up. In fact this is the most direct impact on climate change from trade, and if trade is to be sustainable, emissions from aviation and shipping, both projected to grow, need to be curbed through international cooperation. A step-by-step approach may be envisaged, such as addressing emissions from shipping in distinct geographic regions, thereby both boosting abatement efforts while also paving the way for multilateral solutions. ❶

A new regime, a new relationship?

Clearly the emerging dynamics of the new climate regime might be a game changer for some of the ways governments cooperate internationally around climate change. With a planned universal regime, the world is looking at a much broader climate mitigation effort than seen before, alongside a bottom-up approach whereby countries will use very different instruments and means to achieve their mitigation pledges. This could have implications for trade in terms of how these different policies and measures influence relative prices, demand and supply, and therefore for trade flows. For the trade policymaking community, the significance of Paris will take some time to digest, but it is likely that the range of new climate policies may test the limits of existing trade rules not the least as some countries start scaling up the use of subsidies and other support schemes to clean energy. Some of these support programmes remain in the “grey zone” with regard to international trade rules and careful policy design is needed for optimal outcomes for both climate and trade. It should not be excluded that trade rules may need to be revisited, or at least clarified, to ensure that they are fully supportive of effective global climate action.

Another issue in this context is that of embedded carbon. The volumes of carbon embedded in goods and services that are being traded globally are increasing and today account for almost as much as one quarter of global emissions. This fact will need to be acknowledged and addressed if we are to be successful in curbing emissions. A first step would be to develop better accounting practices, which should be used in parallel with the current system which is based on territorial emissions, to inform policymaking. Second, there is a need to develop policy instruments for abatement purposes. Much can be done by domestic, consumption-related policies such as regulatory standards, labelling, and information campaigns, rather than direct trade policies. Even the former, however, would indirectly affect trade flows. Again, there may be a role for the trade community in recognising embedded carbon in trade and revisiting the concept of “like” products, thereby being able to treat imports differently depending on the level of embedded carbon.

The relationship between the trade and climate communities has also evolved in time. A few years ago the link was rather expert driven and debated at an academic level. Today there is a more proactive approach to trade and climate change policymaking among decision makers. For example, the WTO’s Committee on Trade and Environment (CTE) has discussed the potential trade impacts of carbon footprinting, while regional trade agreements are including cooperative language around “low carbon development” and specific chapters on energy trade.

In June 2013, moreover, US President Barack Obama made an explicit link between trade in clean energy goods and climate efforts through his executive “Climate Action Plan.” As part of a list of international efforts to address climate change, Obama signalled the US would work with trading partners in the WTO towards global free trade in environmental goods, including for clean energy technologies. A group of 17 WTO members are now in the process of negotiating a tariff liberalising “Environmental Goods Agreement (EGA)” and have explicitly indicated that this could be a contribution to the environmental protection agenda including efforts under the UNFCCC to combat climate change and transition to a green economy.

Institutionally, however, the two regimes continue to remain relatively distinct. This may not be a bad thing given the different memberships and mandates between the UN and the WTO. But it is important that the UN system takes the lead for helping governments to address market failures and to internalise environmental costs, so that trade is able to contribute to sustainable growth and development, rather than to exacerbate distortions. In addition, the UN system could draw on some of the good lessons – and there have been some – from the trade system. The WTO’s Trade Policy Review Mechanism (TPRM) provides one multilateral model for the type of oversight that could be applied to the INDCs. In addition, the trade world has seen a diversification in recent years of alternative avenues for cooperation through regional and “plurilateral” agreements – involving sub-set

groups of interested WTO members – which could potentially inspire actors in the climate arena. Conversely, the WTO could draw on expertise around climate technologies in the UNFCCC's Technology Mechanism, which might eventually need to see governments explore ways to have a better connection between the trade and climate communities in this area specifically.

Harnessing trade for a low carbon future

Overall, if deployed correctly, trade can be used as a tool to support climate action and the right alignment of policies remains much more important than the potential tensions or friction. International trade could in particular help to scale up the deployment of environmentally-friendly goods and technologies by lowering tariffs, non-tariff barriers to trade, and smoothing the delivery of environmental services between different countries. This includes products related to clean energy, energy efficiency for mitigation purposes, and possibly even those relevant to adaptation. On this front, the WTO members participating in the EGA have held a series of talks since launching in July 2014 with the aim of identifying precisely which products will be eligible for tariff cuts. Several climate-relevant items, particularly those relevant to clean energy, are reportedly in the mix.

Moreover, while EGA participants have indicated that the deal will initially focus on removing tariffs on products, a number of experts agree that this moderate first step would be significant as a framework for continued effort. In the long term, it would be necessary for the EGA to move beyond tariffs to take on areas such as non-tariff barriers (NTBs) and environmental services trade, as well as broadening its membership to more developing countries. As an "open plurilateral," the tariff cuts in the EGA will be applied to the full WTO membership on a "most-favoured nation" basis, which means that there are benefits already for those that haven't joined. As a full member, however, developing countries would be able to play a role in any eventual review of the EGA list of goods and they could benefit in economic terms from gains from trade such as a better integration in global value chains, economies of scale, and specialisation. In addition, the global climate benefits of the deal would be larger if more countries joined, as this would further drive down the costs and enhance the access to and uptake of climate friendly technologies such as clean energy.

A potential systemic implication of the EGA is that it could help reduce the fear of trade rules as a threat to climate action and instead help stakeholders see it as something useful that can be part of the solutions the world sorely needs. Furthermore, within the context of a newly adopted 2030 Agenda for Sustainable Development that calls for more integrated and coherent policymaking, a successful EGA would be a demonstration that trade negotiators can balance both environmental and commercial concerns.

Trade can also play an important role in adaptation and economic diversification given that climate change will affect the productive capacities of countries. The issue of embedded carbon also needs to be given further consideration. In an ideal world, in the not too far distant future, countries with abundant access to clean energy could step up the production of energy intensive goods and export to other countries. This would be a way of using trade to produce goods in the most energy efficient and low carbon manner. Given that an increasing number of developing nations are plugging into clean energy – and in some cases leapfrogging the high-emitting energy infrastructure found in developed countries – such an approach could be turned to a comparative advantage as part of a sustainable growth model. While much work still needs to be done in this area, Paris will demand significant attention from the global community as a whole, and much more efforts ahead on ensuring its successful implementation within the context of an interconnected and increasingly fragile world.



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① See for example Thomas L. Brewer's recent proposal for a club-type partnership to tackle black carbon (soot) pollution from maritime shipping in the Arctic region. Brewer, Thomas L, (2015). Arctic Black Carbon from Shipping: A Club Approach to Climate and-Trade Governance. Issue Paper No. 4, Global Economic Policy and Institutions Series. ICTSD, Geneva, Switzerland.

TECHNOLOGY

How to harness the power of technology in the Paris climate deal and beyond?

Heleen de Coninck and Ambuj Sagar

In what ways might technology transfer arrangements be strengthened in the new planned climate deal to help ensure effective future climate action across the globe?

There are high expectations for the Twenty-first Conference of the Parties (COP 21) of the UN Framework Convention on Climate Change (UNFCCC) to deliver a new climate regime to take effect from the end of the decade when the current Kyoto Protocol expires. The talks will be held this month in Paris, France and many observers hope the occasion will prove an important milestone in global efforts to combat climate change. Unlike the Kyoto Protocol with its emissions-cuts targets for a list of developed economies only, the Paris agreement will at minimum require all nations to put forward some mitigation effort, now expressed in parties' self-determined "intended nationally determined contributions" (INDCs).

The INDCs generally will give way to a wide range of measures and actions to address climate change. Chief among these is the large scale diffusion of climate technologies. The term "technology development and transfer" – shortened hereafter as "technology" – refers to the process of development, transfer, adaptation, and deployment of technologies to facilitate a climate-compatible technology transition. Technology transfer is rooted in Article 4.5 of the 1992 UNFCCC founding document. However, while there have been some efforts in this area, the topic has proved contentious over the years. An important milestone came in 2010 in Cancun, Mexico with the establishment of a "Technology Mechanism" (TM).

This article aims to explore ways to help strengthen climate technology development and transfer arrangements for the agreement that might emerge from the Paris meet and the implementation of any such deal. It concludes that ample feasible options exist to improve the TM, including in the field of research and development (R&D) cooperation, forming an expert body and a vision for a global network on climate technology capabilities, and providing a strong link between finance and technology in the UNFCCC. The article draws on a longer issue paper published by ICTSD. *[Editor's note, ICTSD is the publisher of BioRes]* A variety of party proposals have been made on technology for the new climate regime, some of which are reflected in the draft text forwarded to Paris, including options such as a global goal for technology development and transfer or addressing intellectual property rights (IPRs).

Current technology arrangements

The objective of the Technology Mechanism – the existing main UNFCCC body dedicated to technology-related climate efforts – is to facilitate the implementation of actions for achieving support for mitigation and adaptation; determine technology needs, based on national circumstances and priorities; and the acceleration of action consistent with international obligations, at different stages of the technology cycle, including R&D, demonstration, deployment, diffusion, and transfer of technology.

The TEC, as the TM's "policy arm," has a broad mandate that includes the facilitation of "collaboration on the development and transfer of technologies for mitigation and adaptation between governments, the private sector, non-profit organisations and academic and research communities." So far, the TEC's main activities have included a number of thematic dialogues, the production of policy briefs, and signalling priority areas to the COPs. The TEC's 20 members are elected by the COP and reflect a geographical

INDCs

UNFCCC parties agreed in 2013 to each submit domestic climate action plans, dubbed “intended nationally determined contributions” (INDCs),” as the building blocks of the new universal climate regime. These should contain at minimum a mitigation component but many put forward to date also cover areas such as adaptation, finance, and technology.

representation, but are supposed to be technology experts, acting in their personal capacity and not on behalf of their countries.

The CTCN's core objective, meanwhile, is to “facilitate a network of national, regional, sectoral and international technology networks, organisations and initiatives” that, among other things, responds to requests made by developing countries through their National Designated Entities (NDEs). The focus of the CTCN is on coaching NDEs on submission of requests for one-off activities such as a specific technical assistance programme and responding to those requests. Current requests have been roughly equally distributed between adaptation and mitigation and cover various sectors. The vision of the CTCN in the long term is that it would help build global, regional, and national networks of relevant actors that can turn to each other for knowledge, training, experience, and capacity building in order to effectively harness climate technologies.

The UNFCCC has also overseen several rounds of Technology Needs Assessments (TNAs) that aim to identify and prioritise technology options. However, while the TNA process is intended to result in technology action plans, strategies, and programmes within countries, it is unclear whether these have seen much follow-up so far. The remainder of this article will outline, drawing on semi-structured interviews with technology experts and negotiators, apparent salient issues that provide a basis for further discussion on technology in the pending Paris deal.

Differentiated perspectives on technology

“Technology transfer” is defined by the 2000 Intergovernmental Panel on Climate Change (IPCC) Special Report on the issue as “a broad set of processes covering the flows of know-how, experience, and equipment for mitigating and adapting to climate change amongst different stakeholders such as governments, private sector entities, financial institutions, NGOs, and research/education institutions. It comprises the process of learning to understand, utilise, and replicate the technology, including the capacity to choose it, adapt it to local conditions, and integrate it with indigenous technologies.”¹

The interviewees interpret this reading of technology transfer to explicitly cover human capabilities and capacity, including capabilities for repair, maintenance, adaptation, localisation and innovation of the hardware, and the “orgware,” such as the capability to inspect, manage and legislate new technology, that is being transferred. However, although all interviewees were clear about this they also indicated that others including many parties, fail to see technology transfer in the same way.

This implicit or perceived disagreement on what constitutes technology transfer seems to be particularly stark between those countries at the “receiving end” and those that are “sharers,” most commonly, between “developing” and “developed” countries. For example, there is substantial research highlighting that the successful uptake of technologies requires a range of local capabilities, the expansion of which are therefore seen as an important issue by developing countries. The issue of local capabilities does not, however, necessarily receive the same level of attention by developed countries. This could be one of the more implicit manifestations of the persistent division between so-called developed and developing countries in the climate talks, often colloquially called “the firewall” in UNFCCC corridors, leading to very different views on what is a feasible and fair way forward in the technology discussions.

Future focus

Interestingly many of the interviews revealed broad agreement that cooperation on strengthening innovation capabilities in developing countries, through activities such as cooperative R&D, needs to become a prominent action item for the Technology Mechanism moving forward. Other areas of opportunity mentioned by some, but not all, of the interviewees included (voluntary) technology standards; strengthened networks; and a climate-friendly IPR regime. Overall, while the TM's mandate would not have to change to address these suggested areas, the TEC and CTCN would likely need to undertake greater initiative in order to find the relevant funding.

Institutional functioning

All the interviewees felt that the TM is a necessary and useful entity that needs continued acknowledgement in the Paris agreement. They almost unanimously felt, however, that more could and should be done for the TM to live up to its potential and expectations. The mandate is generally thought to be broad and extensive enough but the current form and level of implementation, and in particular the funding situation, is seen as insufficient.

A part of the explanation might be that the TM is still relatively young, notably, the CTCN only truly started operations in early 2014. Expectations that it would be able to fulfil its mandate, however, have also remained relatively low among some analysts for a couple reasons. Firstly, while the TEC is mandated to be an expert body that develops policy and technological advice on issues related to technology development and transfer, interviewees consistently indicated that the body is overly political and suffers from being a veritable extension of the UN climate change talks. This means that the traditional divide between developed and developing countries discussed above plays a dominant role in its deliberations.

The interviews also showed broad agreement that there needs to be a solid and robust link between the Technology Mechanism and UNFCCC financial instruments and institutions. In order to make a difference the CTCN in particular needs larger budgets than it currently can access based on earmarked donations from a limited number of willing developed countries. In addition, in order to utilise climate finance to truly enable an effective and sustainable climate technology transition in developing countries, the Green Climate Fund (GCF) and other institutions need to engage in more than just financing hardware and pay particular attention to supporting activities that will allow domestic capabilities to be built in developing countries. Neither the GCF nor its Board currently seem to consider such aspects, and talks on greater institutional linkage between the TEC, the Global Environment Facility (GEF), and the GCF are an outstanding item on the UNFCCC agenda.

Feasible options exist to improve the Technology Mechanism, including in the field of research and development cooperation, forming an expert body and a vision for a global network on climate technology capabilities, and providing a strong link between finance and technology in the UN climate talks.

Indicators and INDCs on technology

A small number of interviewees suggested that elements on technology could be usefully included in the INDCs and reflected on what such contributions would look like. Obvious indicators, such as investments in climate technology R&D could be mentioned, or a target for investments could be set in combination with an inspiring innovation target. Moreover, although a step forward, this would still largely ignore functions in innovation systems that go beyond just the need for investment. Would it be possible to include indicators around capability building? Or include a target on a number of international R&D collaborations with research institutions in key sectors in developing countries?

Key questions to address

In addition to the clear areas of agreement, a number of open questions emerged, implicitly or explicitly, that could be further considered in the new climate regime. In the first instance the notion of building local capabilities and institutions is an important element if the TM is to effectively fulfil its objectives. But this places a huge burden on the TEC as well as the CTCN, however, as capabilities and institutions will need to reflect the local context. The programmes of the TM that are guided by the TEC and designed and operationalised by the CTCN therefore need to be tailored to the context of individual developing countries. Meeting this challenging task remains a major concern for the TM.

Questions also clearly abound on how to make technology actors think about finance. Much of the discussion to date has focused on quantity of finance rather than the structure of finance. While the former is clearly important, given that there is very limited climate finance available to developing countries – especially smaller countries which are overlooked by the large-scale actors – and specific and riskier technology-related endeavours, the latter does require further attention. Measuring progress on technology raised multiple issues. First, how does one assess the endeavours by various countries in a manner that is comparable, and subsequently, how can an assessment be made in terms of adequacy in relation to meeting the objectives of the UNFCCC. Second, should this assessment be in terms of financial and other resources provided, or should it be in terms of outcomes achieved in terms of reduction of greenhouse gas emissions, establishment of adaptation efforts, or capacity building?

Concerns over the emergence of potentially-disruptive new technologies and industries will need to be addressed. The expansion of China's manufacturing base in clean energy technology – a consequence of careful design and continuous investment in its national innovation system including in innovation capabilities, capable institutions, and R&D – has shown that the current owners of technology will not maintain their first-mover advantage forever and will face competition in innovative technology sooner or later. Policymakers from "Annex I" parties can see this as a threat in the context of wishing to maintain high living standards and continuously generate local jobs. Creating one's own competitors in climate technology areas in which Annex I countries themselves have been investing significant public money to generate much-needed employment could be seen as a barrier to further technology cooperation, in particular, in relation to investment in innovation capabilities in developing countries.

An agenda for practical action

The discussion in this article points towards a number of concrete actions relating to technology that potentially could be included in the Paris deal to help its eventual implementation. First, the agreement should welcome and appreciate the constructive role the Technology Mechanism can play, but also reflect that its operations and funding situation needs to be enhanced. Second, the TEC's design needs to help it to develop into a body that assesses options and pathways to enhance technology transfer and gives concrete policy advice; conduct reviews and reality checks of the INDCs from the perspective of technology development and transfer arrangements; provide recommendations of actions that can contribute to the feasibility of INDCs; develop indicators for technology action, measuring progress in low-carbon and adaptation innovation systems in an internationally comparable way, and taking into account the principle of "common but differentiated responsibilities;" identify specific and substantial actions, including international support, for strengthening such innovation systems, and; engage private sector, civil society, and research communities in working groups that lead to widespread, voluntary or eventually enforced, climate-resilience product standards that contribute to mitigation and adaptation.

Third, the CTCN could be requested to develop a practical and ambitious vision and work plan for the Climate Technology Network, with the objective of building innovation and strategic capabilities in all developing economies and particularly in least developed countries (LDCs); develop a programme for R&D collaboration in long-term climate technologies that aims at (tacit) knowledge transfer and cooperation; develop good practices for technology and innovation system operations and governance of national and technology innovation systems. Finally the GCF should be requested to develop, in collaboration with the institutions in the Technology Mechanism, a concrete vision of how its finance efforts are going to contribute towards a transformative change along with the capabilities and institutions needed for that change to occur.



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① IPCC, 2000. Methodological and Technological Issues in Technology Transfer. Bert Metz, Ogunlade Davidson, Jan-Willem Martens, Sascha Van Rooijen and Laura Van Wie Mcgrory (Eds.). Cambridge University Press: Cambridge, United Kingdom, pp. 432.

EMISSIONS TRADING SCHEMES

The UN's role in carbon markets past, present, and future

Andrei Marcu

Carbon markets are gaining traction across the globe. What governance role for the multilateral system in this area?

Carbon markets have been one of the bright spots in climate change mitigation efforts for the last 10-15 years. While climate talks at the multilateral level have stalled, or searched for new ideas after the entry into force of the Kyoto Protocol (KP), markets have delivered. Delivery may have been imperfect, but any policy instrument is invariably so. Moreover, searching for perfection may be genuine, but it could ultimately be detrimental to a real solution.

Carbon markets, and especially any international component, owe a significant part of their development and functioning to the multilateral system and arrangements put in place under the Kyoto Protocol. Whether the KP is a top-down or bottom-up approach is something that can be debated but is not the primary subject of this article. It is nevertheless important to remember that the KP arrangements on emissions trading are restricted to addressing international transfers and not to delving into the role of national governments.

Countries are now in the process of negotiating a new climate agreement due to be signed off by the end of the Twenty-first Conference of the Parties to the UN Framework Convention on Climate Change (UNFCCC COP21) in early December in Paris, France. The deal should replace the Kyoto Protocol as the world's primary multilateral climate governance instrument when it expires at the end of the decade.

In contrast to the KP, which mandated emissions cuts from a specific group of developed countries listed on the Convention's "Annex I," the new climate pact will be universal. Parties have agreed that each nation should outline a climate plan, dubbed "Intended Nationally Determined Contribution (INDC)," containing at least a mitigation element.

This chosen format for the new agreement implies a much wider coverage on the one hand, and on the other, a likely greater diversity in self-determined greenhouse gas (GHG) emissions abatement. In sum, international efforts should add up to enough to keep the world below a two degree Celsius warming from pre-industrial levels, although whether the INDC approach will be able to deliver this remains to be seen in the outcome of the negotiations in the French capital.

Carbon market 1.0

It can be said that the multilateral system has contributed considerably to the creation and function of the carbon market 1.0. The KP is effectively a giant cap-and-trade scheme. Annex I parties were the covered parts of the system and could only emit a certain amount GHG emissions, expressed as "assigned amounts" in UN speak, while non-Annex I parties were not covered but could participate through baseline and credit mechanisms. The KP also provided Annex I countries with abatement cooperation through "joint implementation," a way to generate project-based credits among those covered by the cap.

Article 17 of the Kyoto Protocol provided countries with the opportunity to trade spare "assigned amount units" (AAUs), in other words, to sell AAUs to other countries that may have exceeded their assigned amount emissions threshold. This option was used by a few

Draft text

At the close of a negotiating session in October, UNFCCC parties agreed to send a 54-page document containing a draft agreement and accompanying implementing decisions for further consideration in December in Paris, France. The texts contain a number of options and sub-options on possible arrangements for the post-2020 multilateral climate regime.

parties but not widely. The importance of the AAUs as an accounting tool and tradable commodity, moreover, has not always been fully understood.

It must be emphasised that the KP has provided through the presence of AAUs as a standard unit the means to ensure the environmental integrity of any international transfer of domestic units for compliance. Thus the KP under Article 17 has played a pivotal role in efforts to link domestic markets and emissions trading schemes. For example, the EU had sought to link its Emissions Trading System (ETS) with Australia's planned carbon market – before the instrument was culled by Canberra – and Brussels is currently pursuing technical talks with Switzerland for eventual linking.

The KP therefore in many respects generated the impulse for the creation of an international carbon market, as well as provided the legitimacy, credibility, infrastructure, and regulator for some of the instruments. The KP has also influenced the structure of the market. The world's current main carbon market, the EU ETS, was created in order to help meet the bloc's commitment under the KP. EU resistance to market approaches was replaced with enthusiasm, especially as other domestic approaches to GHG mitigation had proved elusive and un-implementable in the context of bloc's governance arrangements. Japan's deployment of markets, the second largest demand centre, also took place through the use of Clean Development Mechanism (CDM), JI, and the KP infrastructure.

Diminished activity

The KP will likely cease to play any formal role in the post-2020 period and, in any case, it has only been playing a marginal one after the completion of the first commitment period from 2008-2012. This is evinced by the increasing decoupling of the EU from the UNFCCC infrastructure for carbon markets, the virtual elimination of CDM and JI credits from the EU ETS, and the effort by Japan to create a Joint Crediting Mechanism to replace the CDM in satisfying the country's demand for international mitigation outcomes. Carbon market activity has also been greatly diminished primarily due to the lack of demand in the EU ETS, and with it the role of the UNFCCC, the KP, its market mechanisms, and infrastructure.

As parties to the UNFCCC move closer to securing a new climate regime climate observers and policymakers alike are currently speculating on the role of the multilateral system with respect to any international carbon market. This question can be seen as having three components: the remaining second commitment period (SCP) of the KP from 2013-2020; the pre-2020 period; and activity beyond the end of the decade that will be covered by the Paris deal.

Near term forecasts

For the remaining time of the SCP, the KP will continue to play the same role, as a mechanism that generates credits – through the CDM and JI – provides the infrastructure for transfers between KP parties, and the accounting framework for compliance, tracking, and avoidance of double counting, whereby the same emissions reduction is counted twice both by the host country and an eventual buyer of the abated emissions. However, there does not seem to be much activity given the reduced coverage of the SCP of the KP, and limited demand that is driven by low emissions and new regulation that effectively bars KP credits from the EU ETS.

Furthermore, for those countries that are not part of the KP but have commitments or pledges under the Copenhagen and Cancun agreements, the situation is even less clear. Some parties may intend to use the international transfer of mitigation outcomes to meet their Copenhagen pledges. And while many countries do not feel an obligation to obtain approval from the UN to transfer internationally, there seems to be a general unease with respect to the lack of any multilateral protocol to provide assurance that double counting is avoided.

The discussion under the UN's Subsidiary Body for Scientific and Technology Advice (SBTSA) that covers the Framework for Various Approaches (FVA) is seen as a way

to create such a system. SBSTA, a UNFCCC technical negotiating track, was in 2012 given a mandate to conduct three work programmes to elaborate on a “framework for various approaches,” (FVA) “non-market-based approaches,” and a “new market-based mechanism” as a way of coordinating various market and non-market based efforts related to mitigation commitments under the UNFCCC. Once created for the pre-2020 period it could be envisaged that such a system may prove useful for climate governance arrangements beyond the end of the decade as well.

The association of the FVA with a new market mechanism and non-market approaches nevertheless complicated the discussion under SBSTA. Many parties saw no need for any other pre – and maybe now post-2020 – provisions related to markets and transfers and the discussions subsequently stalled. A number of interesting concepts have been discussed, but there has been no outcome in these talks to date. It is as yet unclear what the fate of the SBSTA talks post-Paris will be, as some would like to see it discontinued, and the discussions on the post-2020 period placed under the ADP and whatever process emerges for implementing the Paris agreement.

There is nonetheless a lack of any pre-2020 provisions to avoid double counting. At minimum this makes it unlikely that the SBSTA process will be discontinued in Paris. Many developed countries have been reluctant to let go of existing talks on markets before the outcomes in this area are clear under the new climate regime along with the supportive process. Although seemingly a trivial point, it must also be recalled that the SBSTA discussions at COP21 should normally be wrapped up in the first week, before parties move to gavel the Paris agreement in the second half of the meet.

The role the multilateral agreement might play in creating and catalysing carbon markets, as well as linking and price convergence may be handicapped by the lack of a standard unit similar in function to AAs.

New regime, new markets?

The new climate regime is emerging as a much less centralised agreement through the submission of INDCs whereby countries will choose a range of measures to achieve climate goals. The lack of centralisation is also apparent through what can be foreseen as provisions for reporting and compliance. Many domestic carbon markets and mechanisms are currently in the pipeline. The role the multilateral agreement might play in creating and catalysing carbon markets, as well as linking and price convergence, may be handicapped by the lack of a standard unit similar in function to AAs.

It is likely that some parties will want to transfer emissions reduction units or outcomes that can then be used for meeting other parties' stated abatement ambitions under the INDCs. A provision in the agreement that would recognise parties' ability to count units transferred internationally as part of domestic reduction efforts in a transparent manner may be all that is needed from the Paris deal. The need for a multilateral emissions accounting framework to ensure that there is no double counting seems obvious and is also accepted by almost all parties at this stage.

There are other services that the new regime could provide around markets, however, these are more contested by different groupings. One of these is to track emissions unit flow. The “International Transaction Log” (ITL) currently connects registries that are involved in emissions trading as defined under the KP. A key mandate of the ITL is to ensure accurate accounting and verification of transactions proposed by registries in order to support the review and compliance processes of the KP. Moving forward some parties have suggested that this kind of information sharing could instead be ensured bilaterally.

While this is certainly possible, lessons learned from the EU ETS show that these functions are better off being centralised, so much so that they often end up this way but sometimes

a crisis is needed before reaching this conclusion. Therefore, as no one needs another crisis around carbon markets again, such tracking would be better off done centrally from the beginning of the new regime.

"Net decrease or avoidance of emissions" is another concept currently referred to in the draft text for the Paris talks. However, it is not defined precisely, and the argument can be made that this should be a voluntary function that each party can do on its own, and that the multilateral system has no real role beyond accounting for the decisions of individual parties.

There is also a significant amount of divergence around the role of the international agreement to ensure environmental integrity through standards the transferred units should observe. This debate and search for a solution is hampered by the lack of a standard unit such as the KP's AAUs. Moreover, while the desire to ensure the environmental integrity of the new climate regime would dictate that the Paris agreement should have relevant quality provisions for domestically issued units designed for international transfer for UNFCCC compliance, this may require a complex and potentially controversial system.

Changing climate governance models

The role of the UN agreement in ensuring that countries move towards a linked, networked, or connected carbon market, where carbon prices will converge, is likely to be very reduced when compared to what the KP provided. This is important as it affects competitiveness and will become increasingly pertinent.

The linking of carbon markets may now gravitate towards groups of countries pursuing a "club approach" that may create standards that could eventually become accepted as universal. Whether this approach is legitimate or not is a valid question. Any answer will have to take into account a significantly changed state of global governance since the days of the KP, which now gives multilateral agreements a much more modulated responsibility.

Another function that the new Paris regime may seek to provide in relation to markets, and one that is demanded by many countries, is a centrally operated baseline and credit mechanism under the control of the governing body of the new agreement. Some parties see the benefit in the re-assurance that a UN operated mechanism provides to stakeholders. Meanwhile, others simply do not have the means to elaborate and operate such a mechanism, but see the benefit in having the option available under the UN umbrella.

A final function that the new agreement could provide around carbon markets is on infrastructure. The UN has provided a good infrastructure under the KP in spite of all its imperfections and criticism. While the peril of its politicisation is real, that needs to also be compared with the ability and desire of many countries to operate registries separately, especially if they are to record and execute transfers in the marketplace.

Discussions under the ADP have evolved and what is needed for carbon markets from the UN system, as well as what is possible, are now much better understood as a result of efforts within and beyond the multilateral process. The current draft text is complicated but now provides options for those market-relevant items that can and should be in the Paris agreement. This includes the ability to transfer and account for the transfers in fulfilling the INDCs, as well as the creation of a centrally operated baseline and credit mechanism, although couched in more general language at this stage (Article 3ter). The accounting framework is key and provisions for it are generally accepted.

The rest of the items discussed are not really found in the existing options on the table and they should not be. While more detail is always welcome to avoid deep fights over interpretation in the years ahead – and to start from a more advanced point in 2016 from an implementation perspective – attempts to include them will inevitably lead to more "fights" in Paris that are unnecessary and unhelpful at this stage given the sizeable task at hand.



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SUSTAINABLE DEVELOPMENT

The WTO Government Procurement Agreement: Assessing the scope for green procurement

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What can be said about the revised GPA and the relevant work programme when it comes to green public procurement from a European perspective?

The WTO's revised General Procurement Agreement (GPA) covers government purchasing of goods, services, and construction work valued at US\$1.7 trillion annually. The most serious threat to the aim and purpose of the GPA are "buy national" policies, which act as barriers to trade, potentially limiting the rights of foreign suppliers to bid on contracts they are interested in. Such concerns were for obvious reasons particularly voiced in the aftermath of the 2007/8 world economic crisis, including by the then Director-General of the WTO Pascal Lamy, in his 2009 Annual Report (WT/TPR/OV/12). From a WTO perspective the continued importance of public spending in the future, particularly in emerging market economies, calls for a deepening and broadening of international trade disciplines to ensure that public infrastructure investment and other aspects of government procurement are carried out in a transparent and non-discriminatory manner that maximizes value for money for both governments and taxpayers.

The relevance of the GPA

Although the GPA 1994 was initially partly considered to be a relatively obscure plurilateral treaty, the expansion of GPA membership to potentially encompass emerging actors – China has applied to join – is now more than ever described as a strategic goal within the context of multilateral trade relations. Participation has already increased over the last two decades and the deal now counts 45 WTO members in its ranks. According to Nicholas Niggli, a former chairman of the WTO Committee on Government Procurement, the GPA 2012 could become "a central pillar of the multilateral trading system" not only due to its potential to attract wider membership beyond traditional developed country members but also because of the wider scope agreed in its revision process. The revision extended GPA coverage by between US\$80 and US\$100 million annually. It is also worth noting that the GPA has gained significance over time because procurement provisions in bilateral or regional trade agreements are modelled on its strictures.

Mechanics of procurement

Public procurement regulation intends to make sure that public entities describe in a transparent way what they want to buy before purchasing products, services, and construction work. Best value for money, implementing a process of competition, and equal treatment of bidders are key in this context. Many economists and lawyers basically assume that the "invisible hand" of the market does guarantee rational economic behaviour of private enterprises when organising their supply chain and purchasing, whereas public entities have to be urged through regulation to behave like reasonable economic players. When describing a product two notions are very important. The technical specifications define the minimum features of a product. If the specifications are not met the respective bid is not evaluated. If the specifications are fulfilled, the most economically advantageous tender is chosen based on the lowest prize or award criteria (specific evaluation criteria), designed in order to discern the offer with best prize-quality-ratio. This means that a product of a higher quality – or better total cost of ownership – can be chosen despite being more expensive when considering the purchase prize.

Horizontal policy goals and the original GPA

It is not new that public procurement is used by governments as a tool to promote various policies in the social and environmental spheres. And it is also well known that during

The GPA at the WTO

The Government Procurement Agreement is a plurilateral deal housed under Annex 4 of the Agreement Establishing the WTO meaning that obligations and benefits only extend to participating members. The revised GPA has 17 parties – or 45 WTO members counting the EU as one – and another 30 WTO members are observers to the GPA committee.

the nineties the GPA was regularly interpreted as a heavy defence weapon to avoid such secondary or horizontal policy goals because they can have a potential to be abused as disguised protectionism. Public procurement is from this perspective – in slightly simplified terms – only about money and market access.² According to Susan Arrowsmith and Christopher McCrudden, applying a “purity principle” to the purpose of the GPA would establish a system that reduces as far as possible the insertion of non-economic criteria into the procurement process. Secondary or horizontal policy goals were considered to be “government by procurement” and hence to be avoided.³

Seen from this angle green public procurement was regarded with a degree of suspicion. At the same time, however, other opinions were voiced pointing out that the link to the subject-matter of the contract is easier to establish when discussing environmental features understood as being part of the quality of the product. In this context a distinction was made between green public procurement on one hand, and the integration of social aspects on the other, the latter being considered as less obvious. According to this approach, technical specifications – as explicitly presupposed in Article VI GPA 1994 – include production processes and methods (PPMs) of the procured products, and consideration of these is therefore permitted as long as they do not create unnecessary obstacles to trade. Technical specifications were from a GPA-perspective perceived to be the easiest way to take into account aspects of green public procurement.

It is important to understand that there is a significant difference between classical economy-related regulation and public procurement. The regulatory behaviour of public entities, for instance using an import ban, leads to a limitation wherein private consumer choice can be exercised whereas government procurement implies choices of the public authorities acting as consumers themselves. The logical consequence is that governments must be conceded a wider discretion when making a “consumer choice” compared to their regulatory power with effect on world trade. Therefore the normal PPMs debate rationale, which the classical WTO lawyer is used to, does not apply. The GPA has to be considered as a *lex specialis* in this context. It is broadly acknowledged that a public authority can ask for energy from renewable energy sources despite the fact that the production method is the decisive feature of the product not distinguishable itself from energy from other sources.

This is also true concerning award criteria as the European Court of Justice found in 2003 in the case *EVN and Wienstrom GmbH v Republic of Austria*. The second interesting point in this preliminary ruling was that the possible environmental aspects are not limited to non-economic effects that are in favour of the procuring entity itself – such as the noise levels or nitrogen oxide emissions of buses – but that other globally positive aspects can equally be taken into consideration. Previously, in 2002, in *Concordia Bus Finland (C-513/99)* the ECJ found that award criteria did not have to relate exclusively to advantages to the contracting authority “of a purely economic nature” (paragraph 55). This case law was enshrined in Article 53 of the European Directive 2004/18/EC on the coordination of procedures for the award of public works contracts, public supply contracts, and public service contracts.⁴ There are two possible attitudes towards this evolution. One possible approach is to declare that Article 53 of the Directive 2004/18/EC is incompatible with the GPA 1994. Another is to say that there has been a mind-set change, not only inside the EU, but also among the scientific community when interpreting the GPA.

Interpreting procurement rules

The GPA 1994 is flexible on whether the contract should be awarded to the lowest offer or to “the most advantageous” tender on the basis of “specific evaluation criteria” (Article XIII:4(b) GPA). The GPA 1994 does not give any examples on suitable award criteria; neither are there indications on what weight should be given to those criteria.⁵ The new European approach enshrined in Article 67 of the Directive 2014/24/EU – which replaced Directive 2004/18/EC and is now about to be implemented in the domestic legislation of the EU member states – is slightly different because it gives a signal that the costs are more than just what you pay when you buy something, in other words, the total cost of ownership is given more weight. Furthermore, the more complex a project is, the more the

"prize-quality-ratio" should prevail over the "lowest prize only" approach when defining the most economically advantageous offer. So the "density" of the EU directives is higher compared to the more flexible GPA.

The GPA's approach, however, does provide evidence against the existence of a "purity principle" as described above. The GPA is meant to be compatible with different views on economic policy; a "purity principle" would rather be a possible characteristic of a fully-fledged domestic regulation. Article XIII(4)(b) GPA 1994 on award of contracts should not be interpreted as a negative statement on green public procurement, but as scope for a reasonable balance of interests between the primary goals of public procurement, and the interest of the GPA members to pursue national or international policies in areas such as the reduction of carbon emissions.

The revised WTO GPA and the environment

Article X(6) of the revised GPA on technical specifications reads as follows: "A Party, including its procuring entities, may – for greater certainty – in accordance with this Article, prepare, adopt or apply technical specifications to promote the conservation of natural resources or protect the environment." From a strictly legal point of view regarding the regulation on technical specifications – presupposing the interpretation of Article VI GPA 1994 inspired by Peter Kunzlik as described above – this might itself not be that innovative, as has been argued by some experts, since the understanding that the characteristics of goods include processes and methods for their production laid down in Article I(u) of the revised GPA is based on the same approach as Article VI GPA 1994.

But Article I(u) and Article X(6) of the revised GPA are rather spectacular in terms of the political signal they provide. The explicit acknowledgement that when drafting technical specifications it is compatible with the GPA to consider the environmental impact is, to employ the wording used in another context by Arie Reich, beyond the "standard international-trade rationale." If this is true then the explicit reference to the environment is probably also relevant when interpreting other provisions of the revised GPA. This is also especially valuable when assessing the rules of the revised GPA on award criteria. The revised GPA is as flexible as the GPA 1994 on whether the contract should be awarded to the lowest offer or to "the most advantageous" tender as described in Article XV(5) on treatment of tenders and awarding of contracts. So there is – in contrast to the newly adopted EU Directive – no preference for the best prize-quality-ratio. On the other hand the GPA as a minimal standard does not prevent a signatory from expressing such a preference.

Moreover, if Article XV(5) of the revised GPA is relevant for the assessment how far environmental concerns are allowed when determining the award criteria, Article X(9) on tender documentation is also very significant in this context. According to this provision "the evaluation criteria set out in the notice of intended procurement or tender documentation may include, among others, prize and other cost factors, quality, technical merit, environmental characteristics and terms of delivery." As the environmental characteristics were not mentioned in Article XIII(4)(b) GPA 1994, and considering the new text on technical specifications, it is no longer possible to argue that carbon dioxide emissions generated during the production or consumption of a product cannot be considered in the award phase because they do not lead to a direct advantage to the procuring entity but to an extraneous advantage of the society at large. Given the fact that demanding technical specifications have a more important effect on the competition between bidders compared to award criteria meant to assess the quality of a product, which can be outweighed by a lower prize, the concept of the GPA being relatively flexible concerning the technical specifications should not be interpreted in a too restrictive manner when discussing the award criteria. Environmental characteristics are now explicitly acknowledged.

The GPA work programme and the EU regime on public procurement

The revised GPA 2012 in Article XXII(8) on final provisions provides for the adoption of work programmes to facilitate its implementation and eventual new negotiations. It

is no surprise that one of the items to deal with is "the treatment of sustainable public procurement." The Committee on Government Procurement has decided in this context inter alia to prepare a report listing the best practices on sustainable procurement consistent with the principle of "best value for money" and the international trade obligations of the parties.^① Meanwhile, the EU has adopted a "newspeak" formula on horizontal policy goals called the "strategic use of public procurement," which sounds more positive compared to the "secondary policy goals" floated fifteen years ago^②. One senior EU Commission official said in May 2013 that, unlike when drafting the directives 2004/17/EC and 2004/18/EC, green public procurement was no longer much of an issue for the revised Directive 2014/24/EU^③ whereas the consideration of social aspects in public procurement had instead proved a very hot topic. Public purchasing plays a key role in the Europe 2020 growth strategy as one of the market-based instruments to be used to achieve a smart, sustainable, and inclusive growth while ensuring the most efficient use of public funds. Seen from this angle public procurement has the potential to boost the competitiveness of European industry as suppliers by stimulating innovation in eco-technologies and, at the same time, to shape consumption trends on the demand side when leading by example as a public entity.

Past experience suggests that the framing and the application of the EU public procurement directives can have significant effects on the interpretation of the GPA. It is therefore a more or less educated guess that the policy space that can be used in order to foster green public procurement is growing. This is due to a new understanding of the GPA and public procurement in general. The important task is now to strike a balance between the main principles of the WTO – and EU – public procurement regulation and the "strategic use" of public procurement. Public procurement regulation is about to be reinvented as the standard trade rationale opens itself, to a certain degree, towards a more coherent legal order taking into account horizontal policy objectives such as the environment. This could also be seen when governance issues like fighting corruption and avoiding conflicts of interest were integrated in the regulation concept during the renegotiation of the GPA.

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- ① See on the revision of the GPA Arrowsmith, Sue, and Robert D. Anderson, eds. *The WTO regime on government procurement: challenge and reform*. Cambridge University Press, 2011
 - ② Priess Hans Joachim and Christian Pitschas, "Secondary Policy Criteria and Their Compatibility with EC and WTO Procurement Law – The Case of the German Scientology Declaration", *Public Procurement Law Review* 2000, 171
 - ③ It should be noted, however, that neither Arrowsmith nor McCrudden, support such a view. See Arrowsmith, Sue. *Government Procurement in the WTO*. Vol. 16. Kluwer Law International, 2003, 331 s.
 - ④ See on horizontal policies in the European Union in general Arrowsmith, Sue, and Peter Kunzlik. *Social and environmental policies in EC procurement law: new directives and new directions*. Cambridge University Press, 2009.
 - ⑤ Trepte, Peter, "The Agreement on Government Procurement", Macrory/Appleton/Plummer, eds. *The World Trade organization: Legal, Economic and Political Analysis*, Volume I, Springer 2005, 1123-1163, especially p. 1148
 - ⑥ Kunzlik, Peter. "International procurement regimes and the scope for the inclusion of environmental factors in public procurement." *The Environmental Performance of Public Procurement* (2003), 157-191
 - ⑦ See on the revision of the GPA in general Reich, Arie. "The new text of the agreement on government procurement: An analysis and assessment." *Journal of International Economic Law* 12.4 (2009): 989-1022.
 - ⑧ Decision of the Committee on Government Procurement of 30 March 2012 on a Work Programme on Sustainable Procurement (Annex E to the revised GPA).
 - ⑨ See on the new concept for instance Piga, Gustavo and Tünde Tatrai, eds. *Public Procurement Policy*, Routledge 2015, Part IV "Green public procurement", 161-177
 - ⑩ Kunzlik, Peter. "From suspect practice to market-based instrument: Policy alignment and the evolution of EU Law's approach to 'green' public procurement." *Public Procurement Law review* 3 (2013): 97-115.



Marc Steiner
 Judge, 2nd Division of the Swiss
 Federal Administrative Court

ENERGY

OECD members reach deal to limit export finance for coal technologies

A group of OECD countries are looking to limit export credits to help sell coal-fired power plant technology abroad.

Several of the world's richest economies have clinched a deal to restrict government support for technology exports for coal-fired power plants during a meeting of the Organisation for Economic Co-operation and Development (OECD) that concluded on 17 November in Paris, France. The new rules should help curb official export credits for least efficient coal-fired power plants – a first for international arrangements in this area.

According to a senior OECD official speaking with BioRes, historically countries have not sought to restrict the types of technologies or sectors to which export credits can be provided, focusing instead on providing a level playing field and setting common terms and conditions for these in order to limit potential trade distortions.

The deal concludes two years of behind-the-scenes negotiations by participants of the "Arrangement on Export Credits," an informal body under the umbrella of the broader 34-member OECD. Participants to the arrangement – representing the majority of OECD export credit providers – include the US, Canada, Japan, New Zealand, Norway, Switzerland, South Korea, Australia, and the 28-member states of the EU as one.

Various EU nations, the US, and several multilateral development banks have already taken measures to limit financing of inefficient coal-fired power plants. However, the OECD decision is significant as it solidifies the participation of countries such as Japan and Korea that continue to provide significant export financing to coal technologies, including to some energy-hungry developing regions.

This signals to some observers an acceptance among the world's wealthiest countries that financing inefficient, high-emission coal plants stands in stark contrast with international efforts to combat climate change, with nearly 200 governments looking to seal a new climate pact at UN talks due to be held in Paris, France, next month.

"The agreement represents a first important step towards aligning export credit policies with climate change objectives to achieve lower emissions," said Pekka Karkovirta, chairman of the participants to the arrangement, upon the OECD's announcement.

Export credit agencies in OECD countries provided US\$34 billion to finance coal projects between 2007 and 2014, according to a report spearheaded by the World Wildlife Fund for Nature (WWF), which also claimed that none of this was directed at low income countries where energy access needs are acute.

Efficiency focus

National export credit agencies typically help to lower the risk for investors of making deals abroad, specifically by providing guarantees, government-backed loans, and insurance coverage under certain conditions.

The newly agreed OECD rules restrict participating countries' export credit agencies from supporting the construction of certain coal plants based on criteria related to plant size, technology type and corresponding level of efficiency, and level of development of the project host country.

Fossil economy

Fossil fuels currently make up 81 percent of the world's energy mix, according to the OECD, and greenhouse gas emissions are rising on average 2.1 percent a year.

"The agreement negotiated at the OECD encourages both exporters and buyers of coal-fired power plants to move away from low efficiency towards high efficiency technologies," reads a [statement](#) released by the OECD at the conclusion of the meet.

The agreement removes support for large, less technologically efficient "super" and "sub-critical" coal-fired power plants, which have greater than 500-megawatt (MW) capacity.

The decision does, however, support the use of export credits for smaller, "sub-critical" plants of less than 300 MW in poorer developing countries, and the construction of medium coal plants of 300-500 MW in countries where ten percent or more of the population lacks access to electricity. The most-efficient "ultra-supercritical" coal-fired power plants will still be eligible for export credit backing.

These exemption provisions were reportedly included to appease concerns voiced by South Korea and Australia. Nevertheless, the policy would still eliminate public financing for 85 percent of currently proposed coal plant projects, according to a senior official involved in the talks.

The rules are scheduled to go into effect from 1 January 2017 and are up for a mandatory review in 2019; however, they may be strengthened sooner based on the release of new climate science and policy development in both importing and exporting countries. The agreement must still pass through the EU's internal decision-making process before being treated as final by participants to the OECD Arrangement on Export Credits.

Japan, US compromise

According to media reports, an unexpected agreement between the US and Japan in late October helped make a compromise on these OECD rules feasible. Japan had previously resisted any measure to limit the export of coal technologies, given concerns over competition with China. However, the tide turned in late September when China and the US reinforced their bilateral efforts to combat climate change and announced several new initiatives, including a call for China to reconsider the financing of high emissions projects. (See [BioRes](#), 30 September 2015)

"China will strengthen green and low-carbon policies and regulations with a view to strictly controlling public investment flowing into projects with high pollution and carbon emissions both domestically and internationally," reads the US-China joint presidential statement.

This statement alludes to China regulating export credits for coal in the near future, therefore putting political pressure on Japan to reach a compromise with the US ahead of the OECD meet, according to experts closely involved in these developments. The precise implications of the US-China statement, meanwhile, remain to be seen and officials hope that the new rules under the OECD arrangement might offer a standard for Beijing to follow.

Over the eight years analysed in the WWF report, Japan provided over US\$20 billion to coal projects in developing countries, while Chinese and Russian public finance for coal in the same period was roughly estimated at around US\$17 billion, though with the caveat that finance data from Beijing is difficult to obtain.

Stakeholder reactions

The new OECD official export credit rules have drawn mixed reactions from observers. The World Coal Association welcomed the recognition by the OECD countries that financing needs to continue so that coal power plants can swiftly and affordably tackle energy poverty concerns in developing countries.

On the other hand, some experts are more sceptical of the continued support for coal since firms in developed countries will still benefit from selling technologies for coal-fired power plants abroad, with several analysts suggesting the new rules' formulation may

allow a lot of coal finance to slip through. For other experts the decision is a step forward, albeit a limited one, for developed countries to shift away from supporting high-emitting energy sources.

"This agreement is a sign that using scarce public financing to support overseas coal expansion is coming to an end," Jake Schmidt from the Natural Resources Defense Council told *The Washington Post*. "It will help spur more renewable energy opportunities by redirecting this financing towards climate solutions instead of climate destruction," he continued.

Schmidt added that although coal-fired power plant project developers and technology exporters could still seek backing from private sources, many banks follow the government-led OECD guidelines a benchmark for their own lending rules, suggesting the move could have a "ripple effect."

UN talks ahead, climate finance

For some climate observers, the decision to phase out some financing mechanisms for coal sends a burst of momentum for the upcoming UN climate talks in Paris, scheduled from 30 November to 11 December.

Countries are aiming to clinch a new, universal deal that would help prevent global temperature rises from exceeding two degrees Celsius relative to pre-industrial levels, in order to stave off the worst consequences of climate change. In order to reach this temperature threshold, more than 80 percent of the world's known coal reserves need to stay in the ground, according to a recent scientific [report](#) by the journal *Nature*.

Some observers have pointed to the potential implications of the new OECD rules on the Paris negotiations, as developing countries look to secure a significant amount of funding for clean energy technologies in order to achieve low-emissions economic transformations.

Removing sources of support for future coal projects, including in developing countries, could add pressure on developed nations to deliver support for cleaner energy initiatives in a world where around 1.3 billion people continue to lack access to electricity. Many poorer governments face the twin challenges of decoupling planetary-warming emissions from economic growth and ensuring modern, safe energy for all.

Nonetheless talks on both climate finance – and, to a degree, related discussions on technology transfer and deployment – remain a tremendous point of contention between parties to the UN Framework Convention on Climate Change (UNFCCC). These divisions touch on differences over responsibility for climate action, ensuing moral obligations, shifting geo-economics and capacity, as well as competitiveness in a global economy mindful of energy prices, among other issues.

Developed countries are under pressure in Paris to clearly outline a roadmap for meeting an international promise to provide US\$100 billion in climate financing annually by 2020 and potentially boosting this figure in the following decade. Such funds could be used on energy projects but will also likely have a wider reach. Developing nations, meanwhile, have warned that financial support will be essential to help them tackle climate change.

Developed countries need to fill an approximate US\$40 billion annual gap, according to an OECD report released in October, which estimates an annual average of US\$57 billion was provided in climate financing in 2013 and 2014.

The removal of fossil fuel subsidies, estimated at some US\$600 billion a year globally, and the diversion of export credits away from fossil fuels towards renewable energy sources have been slated by some policy advisors as two mostly untapped areas of potential to channel much-needed finance into building low carbon energy systems. (See *BioRes*, [29 September 2015](#))

WTO

WTO Appellate Body: Revised US tuna labelling regime violates trade rules

The global trade arbiter has weighed in again on a US fisheries labelling programme.

The WTO's highest court ruled on Friday 20 November that the revised version of the US' dolphin-safe labelling regime for tuna products is still in violation of the organisation's rules, granting victory to Mexico in the long-running case (DS381). The US regime measure includes, among provisions, a substantive requirement which disqualified tuna caught by "setting" on dolphins from the label. The method of setting involves purposely encircling dolphins under purse-seine nets in order to reach the tuna that swim below. As a result of the Appellate Body ruling, this latter requirement remains inconsistent with WTO rules, while tuna from other fishing methods can obtain the label and thus access the US market under certain conditions. The Appellate Body finding comes following several years of proceedings under the WTO's dispute settlement system. Disagreements between the two sides over tuna, however, long predate these proceedings. (See Bridges Weekly, 6 November 2008) [Editor's note, Bridges Weekly is ICTSD's flagship sustainable development and news publication]

During the proceedings involving the original labelling regime, the Appellate Body in May 2012 had found that the US scheme violated core trade rules and discriminated unfairly against Mexican tuna products. According to the Appellate Body's ruling at the time, while the original US measure fully addressed the adverse effects on dolphins – both observed and unobserved – resulting from setting on dolphins in the Eastern Tropical Pacific (ETP) area, it did not address mortality arising from other fishing methods in other parts of the ocean.

Given the 2012 ruling, the US introduced changes to the labelling scheme the following year, claiming that these revisions brought the measure into compliance with the Appellate Body's findings. Mexico disagreed, asking that a compliance panel be established to review the WTO-consistency of the 2013 version. The compliance panel found this past April that the Appellate Body had confirmed Washington's right to ban tuna that has been caught through "setting" on dolphins from being eligible for the "dolphin-safe" label. However, the panel made discrete findings that other elements of the amended tuna measure – specifically, the certification, tracking and verification requirements – still violated the non-discrimination requirements under the WTO agreements. Mexico and the US each appealed in June 2015 certain aspects of the compliance panel's reasoning and findings. (See Bridges Weekly, 16 July 2015 and 18 June 2015, respectively)

The amended measure

Under the amended tuna measure, relative to the original version, the disqualification of tuna caught by setting on dolphins remains unchanged. However, a new substantive requirement was introduced allowing other tuna products, that is those containing tuna harvested by all other fishing methods, to be eligible for the label so long as no dolphins were killed or seriously injured in the set in which the tuna were caught.

The amended tuna measure also prescribes a number of certification requirements, as well as tracking and verification requirements, relating to the substantive conditions. Access to the label is conditional upon the provision of a certification by the vessel captain and an approved observer that "no dolphins killed or seriously injured" and that there was "no setting on dolphins" for tuna caught by a large purse-seine vessel in the ETP.

Article 2.1 of the TBT Agreement

Article 2.1 of the WTO's Technical Barriers to Trade (TBT) Agreement is the core legal provision raised in the two members' appeals. In order to establish that a measure is inconsistent with Article 2.1 of the TBT Agreement, the following elements must be shown: firstly, that the measure constitutes a technical regulation within the meaning of Annex 1.1; secondly, that the imported products are "like" the domestic products and products of other origins; and lastly that the treatment accorded to imported products is "less favourable" than that accorded to like domestic products and/or like products from any other country. An analysis of "treatment no less favourable" under Article 2.1 consists of two steps: whether the technical regulation at issue modifies the conditions of competition to the detriment of imported products relative to like products of domestic or foreign origin; and, if so, whether such detrimental impact stems exclusively from a legitimate regulatory distinction.

In addressing Mexico's non-discrimination claims, the Appellate Body found that the compliance panel failed to conduct a holistic assessment of how those various labelling conditions adversely affect the competitiveness conditions for Mexican tuna products in the US market relative to like products from other sources – and, in turn, how the detrimental impact from the original measure has changed as a result of the 2013 revisions. After disagreeing with other elements of the panel's analysis, the Appellate Body deemed that Washington's exclusion of most Mexican tuna products from access to the dolphin-safe label while granting conditional access to the label to like US and foreign products meant that the revised tuna measure modifies competition conditions to the detriment of Mexican tuna products in the US market.

The Appellate Body also found that the panel erred in applying the legal test under TBT Article 2.1 regarding whether the detrimental impact on Mexican tuna products stems exclusively from a legitimate regulatory distinction. This test involves an examination of whether the technical regulation at issue is even-handed in its design, architecture, revealing structure, operation, and application in the light of the particular circumstances of the case.

The Appellate Body clarified that, contrary to what the panel supposed, there was no statement in the 2012 Appellate Body report saying that the US is entitled to disqualify tuna caught by setting from ever being labelled as dolphin-safe, much less that the eligibility criteria are even-handed. For this test, the Appellate Body considered that the panel should have conducted an assessment of whether, under the amended tuna measure, the differences in labelling conditions are calibrated to the likelihood that dolphins would be adversely affected in the course of tuna fishing operations in different fisheries – something that the panel did not do. Absent a proper assessment by the panel of the overall relative risks posed to dolphins inside and outside the ETP large purse-seine fishery, the Appellate Body was unable to assess fully whether all of the regulatory distinctions drawn under the amended tuna measure can be explained and justified in the light of differences in the relative risks to dolphins in those different fisheries.

Observer certification

For tuna products derived from tuna caught anywhere other than the ETP large purse-seine fishery, the requirement that there be observer certification in order to receive the dolphin-safe label depends on a determination made by the the National Oceanic and Atmospheric Administration's (NOAA) National Marine Fisheries Service (NMFS) Assistant Administrator. The WTO judges found that the "determination provisions" – in other words, the criteria that would be need to be met for the NMFS official to deem that observer certification is required – do not appear to address some scenarios in which there may be heightened risks of harm to dolphins associated with particular fishing methods other than the ETP large purse-seine fishery.

For the Appellate Body, the determination provisions do not provide for the substantive conditions enabling access to the dolphin-safe label to be reinforced by observer certification in all cases where risk is comparably high. This may also entail different tracking and verification requirements than those that apply inside the ETP large purse-seine fishery.

The newsroom

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G-20 leaders tussle over climate change language

Negotiations on the outcome document from a gathering of leaders from the G-20 coalition of major advanced and emerging economies ran into the early hours of the morning on 16 November in Antalya, Turkey due to differences over a dedicated paragraph on tackling climate change, according to several reports.

The key divisions involved an internationally agreed target of keeping global temperatures below a two degree Celsius rise from pre-industrial levels, a process to review individual country pledges for greenhouse gas (GHG) emissions cuts, and how to distribute the burden of climate action.

The focus on climate change comes ahead of the UN climate summit in Paris, geared towards agreeing on a new climate regime to take effect at the end of the decade. The G-20 leaders' communiqué also addresses a range of topics from macroeconomic policies and growth, inequality, as well as financial and tax system reform.

EU TTIP sustainable development proposal

The European Commission publicly released on 6 November its proposal for a chapter on sustainable development within a trade and investment agreement currently being negotiated with the US, calling for a series of provisions on labour and the environment.

The proposal is divided into four sections: overarching principles, labour aspects, environmental aspects, and cross-cutting issues.

On the same day the EU executive also released a comprehensive report on the latest round of these Transatlantic Trade and Investment Partnership (TTIP) negotiations, which were held in Miami, US last month.

The report on the Miami round indicated that the two sides reviewed the sustainable development proposal over three days, with that time dedicated to explaining the EU proposal in further detail, reviewing areas of interest to either side.

Next steps for sustainable development indicators

A technical group focused on developing indicators for the 169 targets linked to the Sustainable Development Goals (SDGs) agreed on key next steps during a meeting held in Bangkok, Thailand from 26-28 October. According to a [work plan](#), a draft report on a potential global indicator framework will be made available by mid-December.

The SDGs are part of the newly-adopted "2030 Agenda for Sustainable Development," signed off by world leaders at a UN summit at the end of September, and designed to replace the Millennium Development Goals (MDGs) as a roadmap for global priorities over the next 15 years.

The 17 SDGs and accompanying targets cover an exhaustive range of challenges, from tackling climate change, food insecurity, and extreme poverty, to protecting the ocean, forests, and building peaceful societies. Among the outstanding areas to hammer out, however, are robust indicators to help benchmark progress and ensure the SDGs' full implementation.

TPP text environment chapter scrutinised

The 12 economies party to the freshly-inked Trans-Pacific Partnership (TPP) have made public the full text of the trade and investment agreement. The deluge of thousands of pages of detail organised into 30 chapters and a host of additional annexes covers an exhaustive range of issues from goods tariff liberalisation schedules, customs administration and trade facilitation, trade remedies, services trade, investment, electronic commerce, competitiveness and business facilitation, transparency and anti-corruption, labour laws, among other many others.

The TPP also includes a much-anticipated environment chapter that was the subject of considerable debate and speculation by civil society throughout the negotiations.

While some other regional trade agreements (RTAs) have included environment provisions, several experts have suggested the TPP's environment chapter could be the most important to date.

Ministers focus on climate issues, warnings escalate

Ministers from over 60 countries converged on Paris, France at the invitation of Laurent Fabius, the country's foreign minister, for three days of informal talks from 8-10 November on exploring potential compromises to issues that have proved tough to navigate in efforts to date to hammer out a new, multilateral climate regime by this December.

The gathering reportedly resulted in some general agreement on several issues related to ambition, a periodic review of countries' mitigation commitments, and financing climate action in poorer parts of the world. In addition, the fraught concept of fairness around mitigation action, known in UN speak as the principle of "common but differentiated responsibilities and respective capabilities" (CBDR), was also touched upon.

Governments have agreed to sign off on this new deal during an annual UNFCCC meeting due to be held in December in the French capital. The "Paris agreement" would replace the existing UNFCCC Kyoto Protocol and should be capable of curbing greenhouse gas emissions in the years ahead in order to keep the planet below a two degree Celsius rise from pre-industrial levels.

EGA trade talks set to review draft final list

A "draft final list" of potential products slated for tariff cuts as part of an effort to secure an Environmental Goods Agreement (EGA) has been circulated to participating WTO members on behalf of the talks' chair, officials confirmed following the latest negotiating round. The draft list reflects the latest areas of convergence among the 17-member group – which counts the 28-nation EU as one – around various product nominations, building on work undertaken during talks held from 29 October-4 November in Geneva, Switzerland, sources say.

The document will be reviewed at the next negotiating round scheduled from 30 November-4 December, although it could also be subject to some revisions intersessionally, based on participants' comments.

Since the EGA plurilateral talks launched in July 2014, participants have been discussing the types of products that might be included, followed by product nominations put forward by most players last April equal to around 650 tariff lines. The next round will take place just ahead of the WTO's Tenth Ministerial Conference (MC10) scheduled for mid-December in Nairobi, Kenya.

HFC amendment to the Montreal Protocol agreed

Parties to the Montreal Protocol put an end to years of arduous debate during a meet held from 1-5 November in Dubai, United Arab Emirates, by agreeing to a "Dubai Pathway" for negotiations on an amendment to phase down global climate-warming hydrofluorocarbon (HFC) emissions.

"After seven years of efforts, we have at last agreed to amend the Montreal Protocol next year to phase down HFCs," Jeem Lippwe, a negotiator for Micronesia, told reporters on the conclusion of the talks. During the gathering, countries adopted a number of other substantive and procedural decisions. However, HFCs remained the "major topic" of concern for parties throughout the week, according to media reports.

A decision for parties to work towards an HFC amendment under the Montreal Protocol was agreed following last-minute talks, as countries worked to overcome some of the mistrust built up over the years between developed and developing nations around other phase-out programmes mandated by the pact. The adopted decision states that parties will begin to work within the Montreal Protocol towards an HFC amendment in 2016.

Obama rejects Canada pipeline project

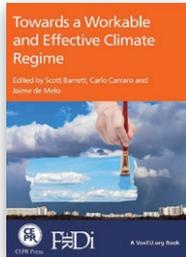
US President Barack Obama announced on 6 November that the State Department would not be approving the Keystone XL pipeline project, a controversial proposal which had become symbolic for the White House's broader stance on climate issues.

In a speech focused on clean energy and climate change, the US executive said that approving the transboundary project – which aimed to bring crude oil and bitumen from the Athabasca tar sands in Canada's western province of Alberta to US refineries – would "not serve the national interest of the United States," given the State Department's assessment.

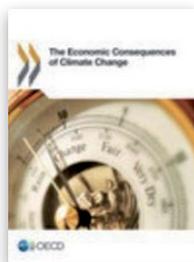
The State Department decision, Obama said, was the result of the following three findings: that the long-term economic benefits of Keystone would be negligible; that the pipeline would not lead to reduced gas prices; and that "shipping dirtier crude oil" into the US would not yield benefits for domestic energy security. The US President then flagged the various achievements under his administration in transitioning toward a clean energy economy.

Publications and resources

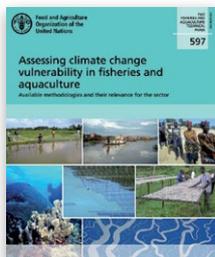
Suggested publications and resources do not necessarily reflect the views of ICTSD



Towards a Workable and Effective Climate Regime – CEPR, FERDI – November 2015
 Published by the Centre for Economic Policy Research (CEPR) and la Fondation pour les Études et Recherches sur le Développement International (FERDI), this eBook looks at what needs to be done to build a climate regime that is both workable and effective, in the context of new planned arrangements such as individual national climate action plans. Although a host of nations have outlined planned abatement efforts between 2020-2030, these are likely not to add up to enough aggregate effort to sufficiently tackle climate change or fully decarbonise the global economy, a challenge the new regime must address. The eBook can be accessed at <http://bit.ly/1Mmyjt8>



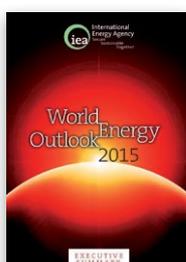
The Economic Consequences of Climate Change – OECD – November 2015
 This report by the Organisation for Economic Co-operation and Development (OECD) provides a global quantitative assessment of the direct and indirect economic consequences of climate change. Through a modelling framework it analyses a number of climate change impacts and links them to consequences to economic growth through to 2060 and beyond. The model suggests that in a scenario where no emissions are abated market damages from selected climate impacts could gradually increase over time and rise faster than global economic activity. The report can be accessed at <http://bit.ly/1lmLZLT>



Assessing Climate Change Vulnerability in Fisheries and Aquaculture – FAO – November 2015
 Over the past decades the concept of climate vulnerability has emerged as a key issue in the development debate, with its multiple interpretations, scales, and fields of application enabling new insights into its causes and consequences, but also calling for more clarification and guidance. This report by the UN Food and Agriculture Organisation (FAO) provides an overview of climate vulnerability assessment concepts, analysing how different methodologies have been applied in the context of fisheries and aquaculture. The report can be accessed at <http://bit.ly/1Nuatjz>



Assessing the Post-2020 Clean Energy Landscape – WRI – November 2015
 This report by the World Resources Institute (WRI) looks at intended nationally determined contributions (INDCs) from eight of the ten largest greenhouse gas emitters – Brazil, China, the EU, India, Indonesia, Japan, Mexico, and the US – and finds that if fully implemented these would lead to a doubling of cumulative clean energy supply by 2030 compared to a 2009 baseline. These renewable energy levels will be 17 percent higher in 2030 than previously projected growth rates. The report can be accessed at <http://bit.ly/1PryPd9>



World Energy Outlook 2015 – IEA – November 2015
 The World Energy Outlook 2015 report by the International Energy Agency (IEA) presents updated projections for the global energy system through to 2040, based on latest data and market developments, as well as detailed insights on the prospects for fossil fuels, renewables, the power sector, and energy efficiency. It also presents trends in carbon dioxide emissions alongside fossil-fuel and renewable energy subsidies. Findings suggest that a new framework for multilateral climate action must try to secure progressively stronger commitments over time. The report can be accessed at <http://bit.ly/1MX8WBm>



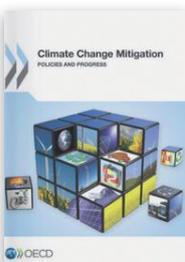
Raising Energy Efficiency Standards to the Global Best – The Global Commission on the Economy and Climate – November 2015

This working paper by the New Climate Economy steered by the Global Commission on Economy and Climate examines the role of energy efficiency in boosting economic growth and reducing greenhouse gas emissions. It also examines the role of standards in delivering energy efficiency benefits and argues that international organisations, business, and national governments should work towards internationally accepted product definitions. This report can be accessed at <http://bit.ly/1l8OSj9>



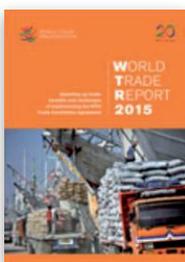
Environment at a Glance 2015: OECD Indicators – OECD – October 2015

This report by the Organisation for Economic Co-operation and Development (OECD) provides an overview of OECD country trends on major environmental issues, highlighting those that have succeeded in reducing their greenhouse gas emissions, those that have increased their share of renewables in energy supply, improved their waste management, or innovated to more efficiently manage water resources, also revealing where progress has slowed or been insufficient. The report is intended to inform policy development and evaluation. The report can be accessed at <http://bit.ly/1PrhSPV>



Climate Change Mitigation: Policies and Progress – OECD – October 2015

This report from the Organisation for Economic Co-operation and Development (OECD) analyses trends and progress on climate change mitigation policies in its members, the EU, and 10 partner economies as governments work towards securing a new multilateral climate regime in December. For each player, the report covers mitigation targets and goals, carbon pricing instruments, and key domestic policy settings in certain areas. A key message from the report is that although most countries are making progress towards meeting their mitigation targets and goals, many are on a trajectory that is likely to fall short, and will need to increase annual emissions reductions rates. The report can be accessed at <http://bit.ly/1N1bCy5>



Speeding up Trade: Benefits and Challenges of implementing the WTO Trade Facilitation Agreement – WTO – October 2015

The World Trade Organization (WTO)'s annual report provides a detailed study of the potential impacts of the WTO Trade Facilitation Agreement (TFA), the first multilateral trade agreement to be concluded since the WTO was established, envisaged to reduce total trade costs by streamlining the flow of trade across borders. The study identifies and examines in detail a range of benefits and challenges arising from the TFA's application, also looking at a new facility launched in 2014 to support developing countries in implementing the agreement. The report can be accessed at <http://bit.ly/1Xx4Xgo>



Global Nutrition Report 2015: Actions and Accountability to Advance Nutrition and Sustainable Development – IFPRI – October 2015

This report by the International Food Policy Research Institute (IFPRI) assesses the progress of countries in achieving the World Health Organization's (WHO) Global Nutrition Targets 2025. Findings suggest that progress in reducing malnutrition has been slow, as no country is currently on track to meet these targets, and more than half of the world's countries continue to face the consequences of malnutrition. The report contains a section on the potential impacts of climate change on agriculture and food security. The report can be accessed at <http://bit.ly/1ORtFFH>

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Price: €10.00
ISSN 1996-9198

