Trade Policy Tools and Instruments for Addressing Climate Change and Sustainable Development

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Acronyms

FDI	Foreign direct investment
GATT	General Agreement on Tariffs and Trade
GHG	Greenhouse gases
IEA	International Energy Agency
IFI	International Financial Institution
IPR	Intellectual property right
LDC	least developed country
MFN	Most-favoured nation
NTB	Non-tariff barrier
OECD	Organisation for Economic Development and Cooperation
R&D	Research and development
SCM	Subsidies and Countervailing Measures (Agreement on)
SPS	Sanitary and Phytosanitary
TRIPS	Trade-Related Aspects of Intellectual Property Rights (Agreement on)
UNFCCC	United Nations Framework Convention on Climate Change
WTO	World Trade Organization

I. Introduction

1. There is a growing consensus that climate change represents the world's most pressing long-term threat to future prosperity and security. In his summary of the recent UN High Level Event on Climate Change, Secretary-General Ban Ki-moon noted that the gathering was an occasion to "express the political will of world leaders at the highest level to tackle the challenge of climate change through concerted action." Meeting in Heiligendamm in June 2007, G-8 leaders argued that climate change "has the potential to seriously damage our natural environment and the global economy."

2. Informing these positions is the science on climate change, which grows ever more certain. The Inter-governmental Panel on Climate Change, the world's authoritative source of information on climate change, this year delivered its fourth assessment report, describing global warming as a "certainty," and human causes of the problem as 90% certain. A changing climate will disrupt complex environmental, social and economic systems that have built up over centuries, and which cannot withstand rapid fundamental change.

3. The burden of action in addressing these challenges does not fall on environment Ministries alone. Tackling climate change will involve fundamental economic restructuring of the world's systems of energy production, of transportation, of manufacturing, of resource extraction and harvesting. Moreover, in taking actions to achieve those goals, the UNFCCC Parties have committed to strive for "an open international economic system that would lead to sustainable economic growth in all Parties, particularly developing country Parties." In the end, addressing climate change means achieving a much more sustainable pattern of global economic growth.

4. It is therefore appropriate that trade Ministers should ask what role they might play in furthering efforts to address climate change. The background paper that precedes this one lays out a number of ways in which trade and climate change are linked, serving as a foundation for this analysis. This paper follows by focusing on just a few of those linkages that seem to offer the potential for positive synergy between the trade and climate change objectives. For each, it briefly lays out the proposition, discusses key issues to be considered in assessing the theme as a candidate for action, and explores the possible modalities by which action might be pursued. The policy options explored in this paper are not put forward as recommendations for action, but rather as fodder for the consideration of the ministers.

5. It should be borne in mind that many of the cases considered below involve trade policy as just one part of a larger coherent effort. While trade policy has potential to play an important role in supporting climate change efforts, it can only achieve that potential if it is situated as part of a suite of complementary measures from other policy spheres – fiscal policy, regulatory measures, development planning, and others.

II. Trade liberalization for low-emission goods

6. In his summary of the recent High Level Event on Climate Change, UN Secretary-General Ban Ki-moon declared, "Technology will play an essential role in our collective response to climate change. Clean technologies are at the heart of sustainable development and our response to climate change." By 2030, the world is predicted to have 2 billion more people, almost twice the per capita income and another 20 trillion dollars invested in energy infrastructure. If those changes are to be compatible with the absolute emission reductions that the IPCC argues are necessary, it will have to be in the context of a fundamental technological revolution.

7. A broad suite of complementary policies will be necessary to meet this challenge (for example, including a focus on investment, discussed below). One area in which trade policy might be helpful is in ensuring that tariff and non-tariff barriers to low-emission technologies and goods are lowered. The basic proposition is that if barriers to trade in low-emission goods are lowered, there will be increased uptake, and increased incentives to invest, in those technologies and goods.

Key considerations

8. As important as it is to the subsequent discussion to define precisely what is meant by low-emission goods, it is also a challenge. Most would agree that the list should include technologies for renewable energy generation (e.g., wind turbines), and possibly for cleaner utilization of conventional energy sources (e.g., technologies for carbon capture and storage, and for low-emission coal combustion). It could also include goods that emit fewer GHGs in their end use than their conventional substitutes (e.g., biofuels, energy-efficient appliances). And it could include goods that emit fewer greenhouse gases (GHGs) in the process of production.

9. The first category of goods/technologies (renewable energy technologies and clean conventional technologies) is not particularly controversial, though there would still be a complex process necessary to identify the various goods on which countries would make commitments, and dual-use problems would be important to address. The second and third categories (clean end use, clean production) are inherently more difficult, since they require agreement on a relative standard: the good or technology in question must be cleaner than some baseline. This judgement in itself is difficult (Is a fuel-efficient car a green good? How efficient must it be?) but it would, moreover, have to be regularly repeated as technology evolves and today's green goods become tomorrow's baseline. As well, while the existing HS codes can make a clear distinction for goods in the first category, there are no HS codes that distinguish efficient clothes driers from energy-intensive ones, for example. The second and third category of goods would, as a group, face this difficulty.

10. The third category would also possibly face resistance from countries that are opposed to the use of trade restrictions based on processes and production methods (PPMs). The argument is that such restrictions may offer too much scope for imposing governments to protect domestic industries.

11. A focus just on the first category would also face some resistance, however. Exports of low-emission technology tend to concentrate in certain countries (mostly developed), which might be seen as receiving unbalanced benefits from a narrower agreement. Broadening the scope of the agreement would bring in more beneficiaries, potentially making trade-offs possible.

12. Another consideration is the distinction between tariff barriers and non-tariff barriers (NTBs) to trade in low-emission goods. While tariff reductions are by far the simpler tack, they also probably represent the lesser of the obstacles. In general, tariff levels on environmental goods are not particularly high (though tariff peaks exist). An agreement to liberalize trade in low-emission goods might at least want to enunciate a goal of addressing trade-related NTBs as well, supported by research on the magnitude of their importance. Relevant NTBs include:

    - Technical barriers to trade: standards, labelling and technical regulations can act as important market barriers. These might be either covered by TBT rules or SPS rules (the latter less likely, but possible in the case of goods derived from natural products, such as biofuels).

    - Subsidies: subsidies to domestic production of low-emission goods can also act as market barriers, though there may be legitimate reasons to employ them where technologies are still in their infancy.

Modalities:

13. This sort of effort would probably be best led at the multilateral level, within the WTO. There are, however, ongoing negotiations on liberalization of trade in environmental goods and services, part of the Doha negotiating mandate, and efforts would have to be made to carefully manage the interplay between any low-emission liberalization initiative and this existing work. Arguably, low-emission goods (and perhaps services) represent a sub-set of environmental goods (and services), on which final multilateral agreement might be easier.

14. Should multilateral agreement prove difficult, there are other options for action in this area. A number of plurilateral agreements have been negotiated in the WTO in sectors such as information technology, civil aircraft and government procurement. Plurilateral agreements need not be extended to non-signatory WTO members on an MFN basis, though the ITA did offer MFN treatment. A plurilateral WTO agreement on low-emission goods, negotiated

among a core group of interested countries would have value, particularly if the major traders were involved.

15. Other options for this sort of agreement might be within the context of regional or bilateral trade agreements, or as unilateral commitments. Again, this would have some value, but a broader agreement (that encompassed more market activity) would be preferable. The narrower the group of parties to any agreement, the more likely it is that there might remain carve-outs and tariff peaks on particular products of interest.

III. Subsidies for GHG reduction

16. During the Uruguay Round of multilateral trade negotiations, there was space created in the Agreement on Subsidies and Countervailing Measures (SCM Agreement) for what were known as non-actionable subsidies, or subsidies which would be considered acceptable, and beyond challenge in the WTO. These fell under three basic categories: R&D expenditures, environmental protection and regional development.

17. Conscious of the potential for abuse, negotiators were very specific about the nature and scope of the non-actionable subsidies. For example, the allowable environmental subsidies were only to be used to help existing facilities adapt to new environmental regulations, and among other requirements had to be a one-time expenditure of no more than 20% of the cost of adaptation. The R&D subsidies were limited to not more than 75% of the costs of industrial research, or 50% of the costs of pre-competitive development activity, and only certain types of costs were covered.

18. Nonetheless, this provided a small window—mostly available to developed countries with the wherewithal to exploit it—for supporting particular types of R&D, and supporting incurred costs from stronger environmental protection. That window closed in 1999, when WTO members declined to renew the relevant provisions. One way in which trade policy might serve climate change goals would be to reinstate SCM flexibilities, recast in a way that focussed on climate change objectives.

Key considerations

19. A needs assessment would be an important prerequisite to any talks on increasing CSM flexibilities is for a needs assessment. The expired Article 8 exemptions, while they were laudable, were in fact very little used. This might be because the WTO strictures on non-agricultural subsidies in general are rather limited, in effect applying only where trade is distorted. Efforts in this area would have to be based on an in depth analysis of what sorts of currently prohibited or actionable subsidies might be useful in the post-2012 context, and in what sectors, and whether those subsidies in fact were in danger of breaching existing WTO obligations.

20. One possible candidate for analysis is R&D subsidies, given the increasing recognition of the importance of new technologies as a key solution to climate change challenges, and the understanding that private sector innovation will need to be substantially supplemented by public support. State support for low-GHG retrofits or the purchase of new technologies might also be considered for carve-out, though again it would be important to understand whether these sorts of measures were likely to be employed in the first place. Subsidies for investment in the area of renewable energy, where there are high up-front outlays, might also be considered. Some have suggested that initial allocations of permits under cap and trade regimes could be considered actionable subsidies under certain conditions, and it might be important to clarify this question proactively.

21. The shape of any post-2012 architecture for climate change would be directly relevant to the scope of reform needed. If there were, for example, an international commitment to double national R&D spending on low-GHG technologies, this would clearly be an area for action. On the other hand, if the commitment were to contribute to a multilateral fund for R&D, this by itself would not imply a need for reform.

22. It might be challenging to get agreement to reinvent the SCM flexibilities with a narrow focus on climate change objectives to the exclusion of other worthwhile objectives, such as regional development for example. Those countries that declined to renew the Article 8 exceptions in 1999 did so precisely because they wanted a much broader approach to policy flexibility. Even within the realm of environmental flexibilities, there may be many countries that see non-climate change objectives as just as deserving of special treatment.

23. Any efforts to increase flexibility under the SCM would have to be undertaken while bearing in mind the ultimate objective of the Agreement – to prevent the unfair use of such subsidies for trade-distorting purposes. It would be important to elaborate any new flexibilities in a way that both allowed legitimate expenditures in the service of climate change objectives, and curtailed expenditures designed to grant competitive advantage to domestic firms.

Modalities

24. Revising the SCM Agreement would have to be a multilateral effort within the WTO. Given the existing rights and obligations, and the principle of MFN, this could not be a plurilateral agreement, and could not feature as part of any regional trade or cooperation agreements. While it could conceivably feature as part of the Doha Round negotiations on rules, such a possibility is highly unlikely given the advanced stage of the talks.

IV. Domestic barriers to investment

25. It has been noted above that technological innovation is one of the keys to successfully addressing climate change. But the World Bank has concluded that "currently available IFI, public and private sector resources and instruments ... cannot lead to a meaningful transition to a low carbon economy." Significantly greater flows of investment will be needed primarily, but not only, in the energy sector. The Bank's Clean Energy Investment Framework is one vehicle to address this need, but it is also worth asking how trade policy might contribute to GHG-lowering investment flows.

26. The scope for trade policy to do so is most clearly by helping to foster foreign direct investment. It is worth noting that the many existing multilateral, regional and bilateral commitments on investment are in fact aimed at increasing this type of investment by protecting foreign investors, though a debate continues on how effective they are in this regard.

27. Most of the key factors in attracting this type of investment are beyond the direct reach of trade policy: stable macroeconomic environment, large domestic market, access to key natural resources, transportation and communications infrastructure, educated labour force, political stability, and so on. One potential area remains, however: domestic barriers to investment. These include customs procedures, licensing permits and other procedural barriers. In the energy sector, they also include the impacts of domestic regulatory regimes which can, often unintentionally, act as strong disincentives to investors. For example, lack of legal obligations for regulated energy monopolies to purchase from independent power producers can make a host state unviable for some alternative energy technology investments.

Key considerations

28. These types of barriers are not directly amenable to trade policy solutions. There is precedent, of course, for trade policy to focus on the first type of barrier as an element of trade facilitation. But even then the focus is on facilitating trade in goods, as opposed to facilitating investment. There is also some precedent for a focus on the second type of barrier, in the context of the collaborative efforts under the Integrated Framework for Trade-Related Technical Assistance, to assess the domestic barriers to FDI. But these efforts have not to date focused specifically on the needs of clean energy investors and they have, moreover, only taken place in the context of least-developed country members of the WTO.

29. An attempt to innovate on the precedents described above—to have a multilateral initiative that focused on domestic barriers to GHG-lowering investment—would ideally be accompanied by an adequate funding mechanism. That is, even where the needs have been identified the host country may not have the financial and technical resources to implement recommended reforms without some measure of financial support and technical assistance.

Estimates of some Uruguay Round-mandated institutional reforms (TRIPS, customs valuation) suggest that this sort of undertaking can be costly.

30. Any such initiatives would clearly have to be requested by the host state on a voluntary, non-conditional, open-ended basis. As well, any action in this area should be coordinated, as appropriate, with whatever work programme might result from the Ministry of Finance Initiated Dialogue of Ministers organized by the Indonesian government and taking place in parallel with COP 13-MOP 3.

Modalities

31. There are several potential institutional homes for a multilateral initiative focusing on domestic barriers to GHG-lowering investment. The World Bank's Clean Energy Investment Framework already operates a programme that has similar aims – the Energy Sector Management Assistance Programme – and it might make sense simply to enhance the operations of this existing facility.

32. Alternatively, WTO members could choose to include the possibility of a specific climate change focus as part of any trade facilitation efforts. For least developed country hosts they might also decide to include such a focus in the existing Integrated Framework programmes. An entirely new institution might be needed to broaden the scope of such work to non-LDCs, and as such it would seem simpler to rely on or augment the existing World Bank programmes.

33. There might also be scope for countries, either bilaterally or acting as a group, to coordinate official development assistance to focus on removing these types of barriers to GHG-lowering investment. An increasing number of countries have in fact sought to integrate climate change objectives in their bilateral aid programmes.

34. Another possibility is a protocol to the Energy Charter Treaty – an international investment treaty that focuses on fostering increased foreign investment in the energy sector. This treaty arguably has the mandate to undertake this sort of work, and has another protocol focused on environmental concerns, but to date has kept with the tradition of most international investment agreements in facilitating investment only by protecting investor rights, rather than through any proactive initiatives.

V. Intellectual property rights

35. It has been argued above that the development and dissemination of new and existing clean technologies is central to efforts to address climate change. However, some firms argue that tough intellectual property rights (IPRs) act as barriers to the transfer and dissemination of technology, including technology for lowering GHG emissions. If this were the case, trade

policy might play a valuable role in exploring ways to ease the relevant IPR-related restrictions.

Key considerations

36. IPRs are intended to serve as incentives for innovators to bring new technologies to market, including climate-friendly technologies, so any initiative to relax them in the service of climate change objectives would have to ensure that those incentives were still somehow in place at the end of the day.

37. Relaxing IPR barriers, in and of itself, would not resolve all the difficulties faced by firms seeking to acquire patented technologies, as technology transfer involves more than a transfer of intellectual property. To be successful it also demands an adequate absorptive capacity, including primarily technical and managerial expertise in the receiving firm.

38. A basic prerequisite to any action in this area is a needs assessment. Some have argued that IPRs in the area of low-GHG technologies are not a significant barrier, as markets in this sector are more competitive than in, for example, the area of pharmaceuticals where there is more oligopoly power. It would be important to assess the degree to which various aspects of IPR do in fact restrict access to different types of emission-reducing technologies.

39. Amending the TRIPS Agreement along these lines would be challenging. The experience of the arduous work related to TRIPS and essential medicines is a good indication. Arguably, a climate-focused initiative would be even more difficult, since it would involve an amendment of existing rights and obligations, whereas the task in the context of essential medicines merely involved clarification of existing rules.

Modalities

40. Any move to revise the applicable trade law on intellectual property would need to be carried out in the WTO as a multilateral negotiation. If a needs assessment were deemed important as a prerequisite to such a negotiation, it might be carried out under the auspices of the WTO's Working Group on Technology Transfer, established as part of the Doha mandate, or it might be a wider effort involving independent experts.

VI. Fossil fuel subsidies

41. Fossil fuel subsidies have an enormous impact on international trade, distorting markets and lowering costs for producers of fossil-fuel intensive goods. At the same time, they encourage the use of the very fuels that most directly contribute to climate change, reducing the attractiveness of investment in alternative technologies. In one of the few studies to date, the IEA has suggested that removing consumption subsidies alone in eight of the

largest non-OECD economies would lower global CO_2 emissions by 4.6%. And yet they persist; while the data is hard to come by, the IEA estimates energy subsidies overall in 2005 amounting to $250 billion, some $90 billion of which was devoted to oil products alone.

42. Trade policy could make a valuable contribution to climate change through a negotiated agreement to reduce certain types of fossil fuel subsidies. As noted below, however, there are a number of prerequisites to successful efforts in this regard, a major one being a concerted effort to garner reliable data on the nature and scope of the problem.

Key considerations

43. The first obstacle to be tackled in any efforts to address fossil fuel subsidies is the lack of reliable up-to-date data. There has been no comprehensive work in this area for the last decade. A full accounting of existing subsidies, and of their estimated economic and environmental impacts, would need to be undertaken before any efforts in this area could begin.

44. Even with the data in hand, however, tackling fossil fuel subsidies would be politically difficult; many countries operate subsidy schemes as a central plank in their industrial strategies (in the case of producer subsidies), or as a politically integral tool in overall social policy (in the case of consumer subsidies). For these countries, an international process offers at least some reassurance that they would not be going it alone in undertaking reforms that, while valuable and even *necessary* at the domestic level, would be strongly opposed by domestic interests. This, in fact, is the heart of the mandate of any international negotiation, and certainly part of the history of the GATT/WTO, which were established to facilitate multilateral agreement on mutually beneficial reforms that could not be undertaken by countries in isolation.

45. Where consumers are negatively impacted, particularly in developing and least-developed countries, there would be a need to cushion the blow. This may argue for a gradual approach to reform, and certainly argues for measures at the national level to avoid negative social impacts, particularly on the poor. One of the topics to be broached in contemplating international action on fossil fuels is the question of whether international efforts can be helpful to facilitate this sort of national-level action.

Modalities

46. The key questions with respect to action on fossil fuel subsidies are where and how? As to the where, a likely candidate to house such efforts is the WTO, though it would have to rely on the support of others, for example in producing the basic information on the nature and scope of existing subsidies. The WTO arguably has a mandate that could justify such an effort, and precedent in its effort to reduce fisheries subsidies – another sectoral initiative aimed at mutually beneficial economic and environmental results from subsidy reduction.

The WTO, however, has traditionally steered clear of energy issues, in large part because of the political difficulties described above, and this traditional reluctance would have to be overcome.

47. Failing that, however, it would also be possible for such an initiative to be led by a smaller group of interested countries, either as a plurilateral WTO negotiation or as a stand-alone initiative outside the WTO. Commitments on fossil fuel subsidy reduction could also be made in the context of regional trade and cooperation agreements. These sorts of commitments to reduce domestic subsidies would not face MFN issues. Of course, the smaller the negotiating group, the smaller the final impact, and the less reassurance that domestically painful efforts would be matched by similar efforts elsewhere – a consideration of particular relevance for producer subsidies.

48. Effort to tackle fossil fuel subsidies would probably need to be understood as unfolding over many years. The modalities of cooperation would depend on the breadth of international commitment to the process. Efforts could start as modestly as a group of interested countries committing to a long-term goal, a process of rigorous information gathering, and periodic meetings to discuss options for broadening the process. There might, alternatively, be a commitment for longer-term action as part of a broader package of WTO initiatives to address climate change.

49. The scope of subsidy reduction efforts would be the subject of negotiation. There are many types of fossil fuel subsidies, all with different impacts, vested interests and methodological complexities. As such, agreement on the scope of effort would be a central challenge, and here again adequate data would be a necessary prerequisite. Some subsidies, such as those for research and development for example, which might result in advanced cleaner technologies, would probably be best left out of any reduction agreement. Others might be left out as administratively infeasible.

50. Finally, the nature of reduction commitments would also need to be negotiated. It might be that commitments to reduce fossil fuel subsidies would be differentiated, either in terms of timeline for reduction or in terms of scope of applicability.

VII. Concluding thoughts

51. This paper has focused on a select few areas in which trade policy might make a positive contribution to climate change efforts. The list of options, drawn from the previous background paper that covered a broader array of linkages, is not exhaustive, but is offered up as the most promising of the various possibilities. The shape of any post-2012 international framework for addressing climate change will obviously determine which issues are most relevant, and may offer up new areas of promise.

52. Many of the possibilities contemplated in this paper involve efforts within the WTO, or broad collaborations that might eventually result in WTO actions. It is important to put these possibilities into context. The ongoing Doha negotiations have a history that does not include a climate change focus, and care should be taken that any new initiatives involving the WTO should not detract from the focus on successfully achieving the existing Doha mandate. In the same vein, the search for synergy between trade and climate objectives should not be misunderstood as a search for ways in which the trade community might become directly involved in the ongoing climate negotiations.

53. In the end there seem to be promising avenues for trade policy makers to pursue in helping achieve the objectives of the climate regime. Many of them also have the potential to contribute to an open international economic system compatible with sustainable development, in line with the objectives of the multilateral system of trade. This first foray into the subject should help guide further efforts in that direction.