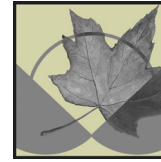


BRIEFING PAPER

trade and investment series



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CANADIAN CENTRE
for POLICY ALTERNATIVES
CENTRE CANADIEN
de POLITIQUES ALTERNATIVES

March 2010

First, Do No Harm The Doha Round and Climate Change

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Introduction

Climate change is a crisis that by its very nature demands an international solution crafted in a spirit of co-operation. Without government action in Canada, greenhouse gas emissions produced by Canadian cars will contribute to the flooding of people's homes in Indonesia. Without government action in Indonesia, the continued destruction of its forests will contribute to severe drought on the Canadian prairies. More than ever, the pursuit of national interests needs to take account of other nations' interests.

Trade negotiations in contrast are conducted with each party concentrated on expanding foreign markets for its own exporters. Governments can launch trade challenges against other countries with apparent disregard for how much a "win" can constrain their own ability to address issues like climate change.

Increasingly, trade negotiations have expanded beyond tariff reduction to target "non-tariff" government policies. The justification given for this effort is that public policies such as regulations and subsidies pose the major barriers to imports now that tariffs have been reduced. Existing agreements administered by the World Trade Organization (WTO) create a variety of ways that non-tariff measures can be challenged, including measures that reduce greenhouse gas emissions. Current negotiations to increase trade in non-agricultural areas such as forestry would have yet more climate damaging impacts.¹

Just how great an obstacle the WTO is to action on climate change is a question for debate. Public Citizen published a report² prior to the 2008 US presidential election itemizing the different ways the candidates' climate change proposals might be challenged using WTO agreements. This report identifies the following conflicts:

- "Cap and trade" systems could violate the General Agreement on Tariffs and Trade (GATT) and the General Agreement on Trade in Services (GATS);
- Fuel efficiency standards could violate the GATT;
- Bans on incandescent light bulbs could violate both the GATT and the Agreement on Technical Barriers to Trade;
- Restrictions on new coal plants could violate the GATS;
- Renewable portfolio standards for energy suppliers could violate the GATS;
- Subsidies for green production could violate the Agreement on Subsidies and Countervailing Measures;
- Green purchasing by governments could violate the Agreement on Government Procurement.

In light of these conflicts, Public Citizen has called for changes to both existing WTO agreements and the current round of WTO negotiations.

Concern that governments were using potential WTO challenges as an excuse for inaction on climate change prompted Friends of the Earth and the Center for International Environmental Law to take a different approach. They co-authored an analysis of the barriers trade law poses to addressing climate change, highlighting the flexibilities in WTO rules that would allow governments to defend “properly designed climate policies.”³ While the report questions how successful WTO challenges to climate change policies could be, Charley Poppe of Friends of the Earth makes clear that the overall thrust of the WTO is bad for the climate: “As they are pushing for more trade the WTO agreements and negotiations are inherently working against the goal of reducing GHG [Greenhouse Gas] emissions.”⁴

However, a claim being made for the current round of WTO negotiations—the Doha Round—is that it can produce “win-win” outcomes for both trade and the climate. The argument is that by expanding WTO rules, countries with export capacity in climate-friendly goods and services will increase their markets. According to this view, importing countries too should benefit because adoption of these products would mitigate climate change.

The following analysis will focus on one aspect of the climate change debate—whether WTO negotiations on environmental goods and services are likely to reduce the climate crisis⁵. It will also review proposals to reduce the threat of WTO challenges to action on climate change.

1. The WTO mandate for negotiations on environmental goods and services

At their 2001 ministerial meeting in Doha, WTO Members agreed to negotiations on “the reduction or, as appropriate, elimination of tariff and non-tariff barriers to environmental goods and services.”⁶ Since then, the WTO’s Committee on Trade and Environment has been holding special negotiating meetings to fulfill this aspect of the Doha mandate.

WTO Director General Pascal Lamy points to the Committee’s work as an environmental justification for concluding the Doha round. In comparing this work to UN climate change negotiations, Lamy describes it as “a complementary track towards reducing greenhouse gas emissions to scientifically-defensible levels.”⁷

The Doha Declaration states WTO Members’ conviction that the aims of upholding an open trading system, protecting the environment, and promoting sustainable development “*must be mutually supportive*”[emphasis added]. Given the negative impacts trade expansion has on climate change, a lot is riding on the work of the Committee on Trade and Environment to fulfill the Doha Round’s environmental mandate.

The WTO’s own research suggests that expanding trade through the Doha Negotiations will contribute to climate change. The WTO and the United Nations Environment Programme (UNEP) published a report in 2009 that included the most recent evidence of the impacts of increased trade on greenhouse gas emissions. This report found “Most of the econometric studies suggest that more open trade would be likely to increase CO₂ emissions.”⁸

One of the obvious problems associated with expanded trade is the potential⁹ for emissions to increase when more goods are transported. While international trade tends to rely on shipping and this produces relatively lower greenhouse gas emissions compared to other forms of transport¹⁰, increases in international trade necessarily have increased negative impacts on the climate. The WTO/UNEP report noted that:

- International trade by air transport—the most climate-damaging form of transport—has been growing at twice the rate of other types¹¹, and
- “Without significant policy or regulatory changes, CO₂ emissions from international shipping will rise by significant amounts in the next four decades.”¹²

The WTO/UNEP report also reviewed research into whether the increased wealth that might be generated by trade expansion has a positive knock-on effect for the climate. Pascal Lamy has described this possible benefit as follows: “trade leads to economic growth, offering countries the possibility of investing this

growth in pollution prevention and abatement if they take the political decision to do so.”¹³ The WTO and UNEP found conflicting results in the studies examining a correlation between greenhouse gas emission cuts and increased incomes. The most recent studies have not found such a correlation.¹⁴

2. Negotiations on Environmental Goods

a) Lack of progress in the Committee on Trade and Environment

A review of the minutes of the WTO’s Committee on Trade and Environment gives little cause for optimism about the Doha round being a “complementary track” to UN efforts on climate change. As uninspiring as the results were of the UN conference on climate change held in Copenhagen, the Committee’s negotiations seem even less likely to produce any significant results.¹⁵

The 2009 WTO Ministerial Conference, held immediately before the UN climate change conference in Copenhagen, exposed the sharp conflicts between WTO Members over expanding trade in environmental goods and services. At the Ministerial, the US Trade Representative spoke of “fast-tracking” negotiations on environmental technologies.¹⁶ The EU Trade Commissioner asked all WTO Members to “intensify work in this area.”¹⁷ Japan’s Economy, Trade and Industry talked of getting an early agreement on liberalization of environmental goods and said this could provide a “fresh impetus” to the Doha Round.¹⁸

Indonesia, in contrast, adamantly opposed the Ministerial being used for environmental goods negotiations. Indonesia’s Trade Minister held a press conference the week prior to the Ministerial rejecting “any discussion” of these negotiations at the upcoming meeting.¹⁹ This developed-versus-developing country divide between trade ministers mirrors the one occurring within the Committee on Trade and Environment.

On the goods side of the Doha environmental goods and services mandate, developed countries mainly have focused on developing a list of environmental goods targeted for tariff reduction. Developing countries, however, have questioned whether the Committee’s priority should be on reducing tariffs for goods that happen to be primarily produced by developed

countries. Some delegations view the negotiations on environmental goods as a form of greenwashing of developed countries’ commercial interests. Cuba said in its position paper to the Committee that “Liberalization of trade in goods, mostly produced in the developed countries, is not the answer...It is necessary to recognize that trade interests are the root of the present deterioration of the environment.”²⁰

Delegations also disagree over what distinguishes an “environmental” good from any other type of good. The debate over how to define environmental goods may seem esoteric, but it involves serious issues. The International Centre for Trade and Sustainable Development (ICTSD) has produced a paper on environmental goods that demonstrates why they are so hard to define.²¹ Pipes, for example, can be used for climate-friendly solar hot water systems or for greenhouse gas emitting oil and gas transportation. ICTSD also points out that with technological change, better alternatives become available to what are currently considered environmental products. While what constitutes an “environmental” good changes over time, lower tariffs bound under the WTO are permanent. Reductions locked in through the Doha Round could provide incentives to import outdated technology.

Committee members are divided over whether to liberalize all products on an environmental list or only those necessary for particular environmental projects. The list approach would liberalize trade for products that negotiators define as environmental. The criticism of this approach is that products can have dual uses and be environmentally beneficial or damaging, depending on how they are employed. Liberalizing products called “environmental” regardless of how they are ultimately put to use appears to some delegations as just another way for developed countries to gain trade advantages.

Argentina made this criticism in their November 2009 submission entitled “The Doha Round and Climate Change.” Argentina argued that “the list approach favoured by some members does not help to reduce the development gap between countries or respect the balance that should be central to the negotiations, as, in such an approach, the logic of liberalization prevails over the logic of environmental protection.”²² Instead, it proposed the Committee focus its efforts on

removing barriers to specific products that are required for Clean Development Mechanism projects initiated under the Kyoto Protocol.

At times, delegations have rejected the basic premise that it is better to encourage the import of environmental products rather than to foster their production domestically. Brazil, for example, has expressed concern that “The list [of environmental goods] did not take into account issues of paramount importance for developing countries, such as the need for conciliating liberalization with the preservation of policy space that would allow Members to create and develop their own environmental goods industry.”²³

In terms of non-tariff barriers to trade, the Committee has mainly discussed whether environmental standards are posing barriers for developing countries to enter developed country markets. In July 2009, China warned about “a chain effect leading to retaliatory measures” if protectionism was introduced in the guise of environmental legislation. China’s view was supported by other developing country delegations.²⁴ Rather than negotiating removal of non-tariff barriers to environmental goods, the Committee is mostly discussing whether environmental regulations create barriers to non-environmental goods.

Saudi Arabia has also used the Committee to criticize a broad range of climate change initiatives—taxation, subsidies, and incentives—as contravening WTO rules. The position paper it submitted on the issue states that “As technology improves, wind, solar, hydro and geothermal energy is predicted to rise as a share of global energy use.... However, financial supports are given at the expense of other energy forms and are discriminatory in nature.”²⁵

b) Impacts of lowering tariffs on environmental goods trade

The WTO negotiations on environmental goods may be fraught with difficulties, but that does not necessarily mean they should be discounted in efforts to tackle climate change. Could the WTO be a positive force in relation to climate change if the political will was mustered to resolve the current impasse in the Committee on Trade and Environment? Governments can always lower their tariffs on environmental goods unilaterally, but could the added push from WTO negotiations be beneficial?

Dr. Veena Jha has undertaken a reality check on the climate benefits of negotiations to liberalize trade in environmental goods. She has raised a key question that is seldom asked: “(W)ill reduction of tariff and non-tariff barriers actually increase trade in renewables and the deployment of renewable energy technologies?”²⁶

To answer this question, Jha analyzed how trade in environmental goods is related to different factors, including tariffs. The rationale for liberalization of climate friendly products is that tariff reductions will make these products cheaper and therefore more widely traded. For most categories of environmental goods, however, Jha found the opposite—higher tariffs were actually associated with higher levels of trade. And despite having low tariffs, African countries import few environmental goods because of lack of purchasing power. These findings suggest that tariffs do not play a significant role in whether a wide range of environmental goods are imported, so getting tariffs lowered through WTO negotiations could not have much impact on increasing this trade.²⁷

For two categories of environmental goods—heat and energy management products and renewable energy products—Jha’s research shows there is a positive correlation between lower tariffs and increased trade. This is encouraging from the perspective of climate change since a shift to climate friendly energy products is an essential part of any solution. Jha cautions though that “even in the categories where tariffs matter, the elasticity with respect to tariffs is low: a one percent reduction in tariff in these categories leads to only a 0.15 percent increase in trade.”²⁸

c) Non-tariff factors in promotion of trade in renewables

If tariffs do not significantly affect trade in environmental goods, what would increase this trade? Focusing on drivers of trade in renewable energy goods, Jha has found key factors are: “access to finance including venture capital and supportive policies by the government such as renewable energy regulations, feed-in tariffs and concessionary loans...”²⁹

Since most developing countries do not have the means to subsidize shifts to green energy, assistance from developed countries is key. Development assistance is not an area, though, where the WTO can play role. The Copenhagen Accord³⁰ concluded

under the auspices of the UN committed developed countries to provide \$30 billion in “new and additional resources” to developing countries over the next three years. Some of this “Quick Start” funding might finance renewable energy projects in developing countries, although the promised funds are clearly inadequate to the need.

The other key drivers of renewable energy trade that Jha identifies—feed-in tariffs and renewable energy regulations—are policies that may conflict with WTO rules. Feed-in tariffs are requirements governments impose on power utilities to purchase electricity generated from renewable sources such as wind farms. They provide guaranteed prices over a set timeframe that are higher than what is paid for electricity from conventional sources. Jha found that a country’s feed-in tariffs for its own electrical utilities also increased renewable energy exports, and played a “crucial role in generating markets for renewable energy.”³¹ However, as a form of subsidy they are inconsistent with free trade principles because they do not provide a level playing field.

In terms of regulations to spur use of climate friendly alternatives, these too can conflict with trade rules. For example, the Canadian government aggressively opposed California’s recent implementation of a Low Carbon Fuel Standard, arguing that it would unfairly discriminate against imports of oil from the Alberta tar sands. The Low Carbon Fuel Standard is a regulation prompted by California’s 2006 Global Warming Solutions Act. This standard requires that transportation fuel supplied to the California market be below a maximum carbon intensity. Carbon intensity is calculated by counting the greenhouse gas emissions involved in producing, transporting, and use of fuels. The aim of the Act is to promote alternative, low carbon fuels and to reduce the carbon intensity of fuels used in California by 10% by 2020.³²

Among other Canadian government efforts to block California’s new regulation, in April 2009 Canada’s Minister of Natural Resources Lisa Raitt sent a letter to Governor Schwarzenegger claiming the Low Carbon Fuel Standard “could be perceived as creating an unfair trade barrier between our two countries.”³³ Raitt complained that the regulation would unjustifiably discriminate against crude oil from Canada’s tar sands, and that California should treat all sources of

crude the same. Raitt emphasized that, unlike crude oil coming from other nations, Canada’s oil resources were developed by the private sector. California-based Chevron was pointedly mentioned as a significant tar sands investor.

Simon Potter, a partner in the Canadian law firm McCarthy Tetrault, has already outlined a challenge that Canada could take against California’s Low Carbon Fuel Standard. In a presentation entitled “Fighting Back Against California’s LCFS”³⁴, Potter explained how Canada could take a complaint against this regulation to either a WTO or a NAFTA panel. The main basis of such a complaint would be that crude from the tar sands was “like” other oils used for transportation fuels and that California’s regulation was discriminating against Canadian crude in favour of US-produced oil and oil coming from other countries. Such discrimination breaks the “national treatment” and “most-favoured nation” rules under the WTO and NAFTA agreements.

Potter discounts the possibility that the environmental exceptions in WTO and NAFTA could successfully be used as a defence for California’s climate change initiative.

d) Environmental exceptions— a positive ruling by the Appellate Body

A 2007 decision by the WTO Appellate Body in the Brazil-Tyres case offers hope that climate change regulations could be successfully defended from trade challenges by using exceptions clauses. Such clauses allow WTO Members to violate the terms of a WTO agreement if they can justify the violation according to criteria set out in the “exceptions” clauses of the agreement. In its Brazil-Tyres interpretation of exceptions clauses, the Appellate Body appeared to go out of its way to mention climate change, something that was not an issue in the particular case. In judging whether Brazil’s actions met the criteria to qualify to be exempted, the Appellate Body used climate change as an example of a problem that required that latitude be granted to governments.

The Appellate Body stated: “the results obtained from certain actions—for instance, measures adopted in order to attenuate global warming and climate change, or certain preventive actions to reduce the incidence of diseases that may manifest themselves only after a

certain period of time—can only be evaluated with the benefit of time.”³⁵ A policy could be justified as necessary, even if it did violate WTO rules, as long as it could be shown “to produce a material contribution to the achievement of its objectives.”³⁶

This WTO ruling makes it riskier for governments to launch challenges against climate change legislation, as Canada seems to be threatening in the case of California’s Low Carbon Fuel Standard. If challenged by Canada, the US would not have to prove in exact quantitative terms how much its standard decreased climate change. The US defence, based on the Appellate Body ruling in *Brazil-Tyres*, “could consist of quantitative projections in the future, or *qualitative reasoning* based on a set of hypotheses that are tested and supported by sufficient evidence[emphasis added].”³⁷

California appears to have met these requirements. Two years before introducing the Low Carbon Fuel Standard, transportation experts at the University of California were contracted to conduct a technical analysis on the proposed regulation to determine whether it could meet California’s reduction goals.³⁸ Their report offers evidence that the standard would “produce a material contribution to the achievement of its objectives.” The report neutrally assesses the carbon intensity of different fuels, regardless of their origin, including fuel produced from Canada’s tar sands.

The *Brazil-Tyres* ruling also suggests panels should look at the contribution of individual policies in the context of whether a government has a “comprehensive strategy”³⁹ to address a problem. California’s Global Warming Solutions Act provides such a comprehensive strategy and includes initiatives that complement the Low Carbon Fuel Standard.

3. Negotiations on Environmental Services

a) Background on GATS environmental services negotiations

On the services side, the members of the WTO’s Committee on Trade and Environment have mostly⁴⁰ agreed that it is up to the GATS negotiators to fulfill the Doha mandate of expanding trade in environmental services. In the GATS negotiations, the European Union heads a group including the US, Japan, and Canada that has requested more liberalization in a category of

services labelled “environmental”. The twenty-three WTO members targeted by this “plurilateral” request are almost all developing countries.⁴¹

Just as for goods, the countries that stand to gain the most commercially from increased trade in environmental services are developed countries. When the OECD examined the global market in environmental services, it found that the fifty companies that dominate this market were all based in Europe, the US, Japan, or Canada.⁴²

The challenge for service corporations seeking to expand internationally is not to get lower tariffs, since there are no tariffs on services. They seek instead to eliminate non-tariff barriers to trade, including public sector delivery of services, regulations and subsidies for domestic suppliers. GATS experts have observed that: “Due to the nature of service trade, impediments to such trade tend to come in the form of non-tariff barriers, reflecting the difficulties inherent in imposing tariffs directly upon either the service consumer or the service supplier as they interact across borders.”⁴³

The main tools governments use to reduce greenhouse gas emissions are non-tariff measures. How then can GATS-inspired elimination of non-tariff measures promote action on climate change? The argument the WTO Secretariat gives is that “trade and trade opening can have a positive impact on emissions of greenhouse gases in a variety of ways including accelerating the transfer of clean technology and the opportunity for developing economies to adapt those technologies to local circumstances.”⁴⁴

Increased trade in environmental services might help to reduce greenhouse gas emissions if there is actual transfer of clean technology and other benefits. The question that needs to be asked is whether the GATS creates a framework for expanded trade that strengthens or undermines the ability to achieve these benefits. In addition, as trade in environmental goods is usually directly affected by regulations in the services sector, the impact of GATS commitments in climate-sensitive sectors such as energy needs to be considered.

Under the GATS, countries choose which services they commit to be governed by the market access and national treatment rules of the agreement. Successive

rounds of bargaining are intended to expand the sectors where countries make commitments as well as to eliminate limitations they may have placed on their past commitments. The bargaining involves countries making “requests” of each other for GATS commitments in specific sectors, in response to which countries make “offers”. In addition to the request/offer negotiations, the GATS is being expanded in a way that stands to undermine the ability to regulate greenhouse gas emissions. The GATS, like the GATT, has an exceptions clause that might provide governments a defence if their climate change measures were found to be violations of the agreement. However, as will be discussed below, the GATS exceptions are more limited than those included in the GATT.

b) What is an “environmental” service?

The lack of clarity at the WTO about what constitutes an “environmental” good also exists on the services side. Countries list their GATS commitments according to classes of services, usually using a UN classification system called “CPCprov”. The plurilateral request for environmental services made by the EU and other developed countries asks for commitments in all the subcategories covered under the CPCprov heading: “Sewage and refuse disposal, sanitation and other environmental protection services.”

The countries making the plurilateral request for environmental services justify it by citing the environmental mandate in the Doha Declaration. They tell the developing countries that are being targeted for increased opening to foreign services that they will gain if they make GATS concessions in this area, even though these countries will have to allow increased imports. According to the countries asking for liberalization, “liberalized environmental services market benefits both exporters and importers of these services as well as environment and development.”⁴⁵

There is an issue around whether the services classified as “environmental” under the GATS cover all those relating to the environment. For instance, Canada has asked if environmental law fits under the category of environmental or legal services.⁴⁶ Norway has suggested maritime transport services should be considered as a priority for liberalization, arguing that shipping was an “environmentally-friendly form of transportation.”⁴⁷

Another problem is that some of the services in the plurilateral environmental request may actually result in net harm to the environment if they are adopted over alternative, more environmentally friendly options. They are not necessarily environmentally *preferable* services. Solid waste management is a key example. This is a sector that the EU describes as “purely environmental”.⁴⁸ But the CPCprov classification for this service covers all forms of disposal regardless of their effects on the environment.

A 2006 study conducted for the UK government found that managing certain waste materials through recycling cuts CO₂ emissions significantly more than landfill and incineration with energy recovery.⁴⁹ Given the scale of the benefits for the climate to be gained from recycling, Friends of the Earth is recommending “comprehensive bans on the landfilling and incineration of key recyclable materials...”⁵⁰

However, once governments have made unlimited GATS market access commitments for services like incineration—as the plurilateral request asks that they do—they can no longer ban these services without violating the agreement.⁵¹ In this way, making a GATS commitment for refuse disposal could undermine pursuit of the best solutions to address climate change. Committing services labeled “environmental” under the GATS can have environmentally damaging consequences.

In addition, trade in climate friendly goods can be bound up with trade in services such as energy sales. As will be discussed below, the expanded commitments for energy services being sought in the current round of GATS negotiations could have negative effects on trade of renewable energy goods such as solar panels and wind turbines.

c) Impacts of GATS commitments on environmental services trade

“For environmental services, the current set of GATS negotiations offers WTO members an opportunity to achieve greater levels of liberalisation in an orderly and flexible manner.”⁵²

This quote from the OECD Directorate illustrates the importance of distinguishing the benefits of trade in environmental services from the benefits of subjecting this trade to the rules of the GATS. Often advocates of

GATS environmental services commitments conflate the two.⁵³ The advantage claimed for liberalizing under the GATS—being able to do so in “an orderly and flexible” manner—seems like a weak rationale for submitting to a set of very stringent rules that make governments vulnerable to trade challenges. As will be discussed below, some of these rules are at odds with action on climate change.

Opening to trade in environmental services appears to have already happened in the countries targeted for liberalization in the GATS environmental services negotiations. It is therefore worth asking how great the barriers actually are to this trade and what role GATS commitments have to play in further expanding it.

A complaint from the European Commission, made in its December 2007 summary of the state of these negotiations, is that there is a large gap between existing levels of openness and what targeted countries are willing to lock in under GATS commitments.⁵⁴ Whether the GATS environmental services negotiations help reduce greenhouse gas emissions is a separate question from whether expanded environmental services trade does this, because extensive environmental services trade can and does happen without the GATS. An UNCTAD report made this point:

“It is important to realize that trade in environmental services can take place, and does take place, in the absence of commitments under the GATS. While there are barriers to international trade in services, the main problem is not so much restrictions on trade as the lack of demand. The main issue therefore is how to strengthen demand for environmental services and promote appropriate implementation of environmental policy, including through the establishment and enforcement of environmental standards and regulation.”⁵⁵

The WTO course on the agreement explains that binding trade openness with GATS commitments provides investors the security they need by “guaranteeing that investment and trading conditions will not be changed against their interests.”⁵⁶ But is there evidence that binding trade openness with GATS commitments actually increases trade? And is climate change mitigation not dependent on changing “investment and trading conditions”?

In reviewing the effects of the commitments made in the previous round of GATS negotiations, the WTO Secretariat concluded that “Available evidence suggests that the bindings negotiated in 1993 remained essentially confined to locking in the status quo. While the economic value of such bindings—attributable, in particular, to the resulting gains in transparency and predictability for market participants—is indisputable, they are unlikely to have impinged noticeably on trade flows.”⁵⁷ On this basis, there seems to be little reason to believe increased trade will result from the current GATS negotiations on environmental services.

d) GATS commitments and technology transfer

The 2009 UN handbook on technology and climate change⁵⁸ notes that energy demand is likely to double by 2030. At the same time the most recent scientific data demonstrates greenhouse gas emissions are already increasing faster than the worst case scenario described in 2007 by the Intergovernmental Panel on Climate Change. Changes in key areas—“global mean surface temperature, sea-level rise, ocean and ice sheet dynamics, ocean acidification, and extreme climatic events”—are already exceeding historic patterns of variation. The handbook concludes that the need to reduce greenhouse gas emissions and projected increases in energy demand have to be reconciled through adoption of low carbon technologies.⁵⁹

The countries requesting GATS environmental services commitments claim “transfers of environmental technologies and knowledge” are some of the benefits to be reaped from the environmental services negotiations.⁶⁰ The GATS negotiations on environmental services are likely to have the opposite effect, however.

Where WTO members want to retain the right to ask foreign companies entering their markets to transfer technology or train local people, they have to make sure they list this as a *limitation* on their GATS commitments.⁶¹ Otherwise, such requirements violate the agreement. National treatment in the GATS requires foreign service suppliers not be treated less favourably than local ones. Making only foreign suppliers transfer technology or train local employees breaks this GATS rule.

Some developing countries have listed general limitations on their GATS commitments in order

to ensure technology transfer. Brazil, for example, has a limitation for all of its commitments so that when managers and directors of foreign companies in any service sector come to Brazil to work, the government can require these transfers to “be related to the provision of new technology”.⁶² Tunisia listed a limitation so that service traders could be required to “generate technology transfer.”⁶³ But in the current GATS negotiations, both Brazil and Tunisia are explicitly being asked “to eliminate” these technology transfer requirements.⁶⁴

In addition to requiring technology transfer as a condition for opening markets, countries can also foster technology transfer by insisting that foreign investment take a form where such transfers are most likely to happen. But GATS commitments limit what governments can do in this regard. As GATS expert Julian Arkell has pointed out:

“The GATS, by contrast with the GATT, has rules for the treatment of foreign suppliers when they are either established abroad (termed commercial presence) in whatever juridical form (such as branches, subsidiaries, partnerships or joint ventures), or as temporarily present in the case of ‘natural persons’, whether as employees or self-employed. To this end GATS includes some elements of an investment treaty...”⁶⁵

Some WTO members have placed limitations on their GATS market access commitments so they can require foreign investment be joint ventures, partnering foreign firms with domestic companies in the supply of services. Joint venture requirements violate the agreement, however, unless they are listed as limitations on commitments. One of the GATS market access rules prohibits “measures which restrict or require specific types of legal entity or joint venture through which a service supplier may supply a service.”

For China, joint ventures have been particularly important in achieving technology transfer.⁶⁶ China’s GATS commitments for commercial presence generally require joint ventures. Under environmental services, for example, China has placed the following limitation: “Foreign services suppliers engaged in environmental services are permitted to provide services only in the form of joint ventures...”⁶⁷ The EU’s bargaining request

to China has asked it to get rid of this joint venture requirement.⁶⁸

The group of countries seeking more GATS environmental services commitments have asked all targeted countries, including China, to eliminate joint venture requirements. The plurilateral environmental request says targeted countries should remove “requirements on types of legal entity for foreigners, such as Joint Venture.”⁶⁹

Developing countries are also being asked to make unlimited commitments for the cross-border delivery of environmental services wherever this is feasible. The plurilateral environmental request proposes countries should commit to having services like pollution monitoring or waste management planning done abroad and supplied electronically. According to UNCTAD, cross-border trade is the least likely to generate technology transfer in contrast with other forms of trade that “provide opportunities for person-to-person communication and learning by doing”.⁷⁰

To summarize the GATS impact on technology transfer:

- GATS national treatment commitments prohibit countries from making specific requirements for foreign companies to train local people or transfer technology.
- GATS market access commitments prohibit countries from requiring foreign companies to set up joint ventures with local companies, a form of foreign investment that encourages technology transfer.
- Countries can limit their market access and national treatment commitments to maintain these technology transfer requirements. But such limitations are then targeted for removal, as demonstrated by bargaining requests in the current round of negotiations.
- When countries make GATS commitments under cross-border delivery, they have to allow services to be supplied in a way that is the least likely to generate technology transfer.

If countries are expanding trade in order to obtain “transfers of environmental technologies and

knowledge”, they need to be aware of the different ways GATS commitments can impede these transfers.

e) GATS impacts on regulation

i) The role of regulation in addressing climate change

In an influential report produced for the UK government, “The Stern Review on the Economics of Climate Change”, Nicholas Stern identified regulation as a key tool for mitigation of climate change. According to Stern, regulation is particularly important in prompting modifications in behaviour. Even when changing to low carbon options makes economic sense, a myriad of barriers can get in the way. Stern concluded that: “Regulatory measures can play a powerful role in cutting through these complexities, and providing clarity and certainty. Minimum standards for buildings and appliances have proved a cost-effective way to improve performance, where price signals alone may be too muted to have a significant impact.”⁷¹

Stern listed other important roles regulations could have in efforts to address climate change, such as ensuring there are markets for innovative products.⁷² This finding is confirmed by investigations done by the US International Trade Commission on the market potential for pollution abatement services. According to the ITC, “demand for air and noise pollution abatement services is driven largely by government regulation and enforcement efforts, and to a lesser extent, by international treaty obligations, public sentiment, and private-sector financial resources.”⁷³

A 2007 Canadian report on climate change also highlighted the importance of regulation. In “Getting to 2050: Canada’s Transition to a Low-emission Future”, the National Round Table on the Environment and the Economy concluded that more would be needed than taxes and cap-and-trade systems to reach targeted reductions in greenhouse gas emissions. Governments would have to implement complementary policies, “specifically regulatory mechanisms that will force GHG emission reductions from parts of the economy that may not respond to a price signal.”⁷⁴

At the WTO, the proponents of environmental services liberalization recognize the importance of regulation in creating markets for these services. For example, Switzerland’s paper on environmental

services comments that “The environment industry has developed significantly in countries where environmental standards are particularly stringent.”⁷⁵ Switzerland, on the other hand, is advocating the strictest version of proposed GATS restrictions on domestic regulation.⁷⁶ As will be explained below, these new GATS rules are a serious threat to action on climate change, providing multiple grounds for regulations to be challenged at the WTO.

Switzerland is not alone in holding this contradictory position. At a Council for Trade in Services meeting where liberalization of environmental services was discussed, WTO Members said: “Environmental regulation played an important role in generating demand for environmental services. But Members emphasized the need to prevent the creation of technical barriers to trade.”⁷⁷ The “technical barriers to trade” referred to are regulations. However, subjecting trade in environmental services to GATS rules threatens to undermine the regulations that create markets for these services in the first place.

GATS challenges can be taken not only against regulations that discriminate in favour domestic services over foreign ones, but even against regulations that provide a completely level playing field. A former US trade official clarified this key aspect of the agreement in the following way: “The GATS recognizes that trade in services can be hampered by either discriminatory regulatory requirements imposed only on foreign services or by restrictive regulations that are imposed on both domestic and foreign services.”⁷⁸

ii) The risk to climate-friendly regulations from the GATS

1. Regulations that “discriminate”

As explained above, government requirements that foreign investors train staff or transfer technology are examples of national treatment violations because they demand more of foreign firms. But governments can violate their GATS national treatment commitments in less obvious ways. In an analysis of the GATS and the construction sector⁷⁹, the WTO Secretariat points out that “Even if the same measures are applied to all suppliers, domestic or foreign, they may be found to be more onerous to foreign suppliers.” Applying exactly the same regulations to foreign and local companies does not make governments safe from a GATS complaint that they are discriminating against foreign suppliers.

There can be misunderstanding on this fundamental point, and the misunderstanding can be repeated even at the highest level of the WTO. On October 14, 2009 in Washington, Director General Pascal Lamy addressed a conference of the Global Services Coalition, an industry group that lobbies for services liberalization. He urged the company representatives present to get involved in the Doha negotiations as they would be the “main beneficiaries of a new global trade deal”. In his speech, Lamy gave the following interpretation of the GATS:

“As you all know, in the world of the GATS, ‘liberalization’ is essentially about opening specified sectors to competition on a non-discriminatory basis. It does not mean deregulation... At this point in the services negotiations, this is very important. Let me repeat it: opening markets is one thing, you can do it more or less. Regulation is another. You can open and regulate, open and not regulate, not open and regulate, or not open and not regulate. At this moment, it is important to understand this. If you open your market, you are saying you are regulating foreign and domestic in the same way.”⁸⁰

“Not discriminating” and “regulating foreign and domestic in the same way” however are insufficient to avoid GATS violations. National treatment under the GATS does not mean “regulating foreign and domestic in the same way” but instead that regulations have to provide foreign and domestic suppliers with the same conditions of competition⁸¹; if foreign companies are at a disadvantage in complying with climate-friendly regulations, the regulations violate national treatment even when the same regulations are applied to foreign and local companies.

If governments make GATS commitments of a service, their regulations over this service can be challenged in ways that are hard to predict. In the three WTO cases⁸² where GATS rules have played a major part in a successful challenge, the panels have felt compelled to explain the limits of the right to regulate under the agreement. In a 2009 decision against China, the panel stated “We observe that China has the undoubted right to regulate trade in services under the GATS... This regulation must however be in accordance with the

GATS commitments that China has chosen to make in its Schedule.”⁸³

Renewable portfolio standards—requirements that electrical utilities provide their customers with a certain percentage of their energy from renewables—are climate friendly regulations that could violate national treatment rules. Professor Robert Stumberg has analyzed the risks GATS energy commitments pose for renewable portfolio standards imposed by state governments in the US. These standards exclude energy produced by large scale hydro dams, an exclusion that arguably puts Canadian utilities at a competitive disadvantage in selling into the US and therefore could violate GATS national treatment.⁸⁴

2. Regulations that limit or ban a service
GATS market access commitments prohibit both quantitative limits as well as outright bans on services, regardless of whether these policies are discriminatory. The WTO Secretariat has pointed out that WTO Members can be confused about the meaning of market access, thinking that it only prohibits discrimination, but “this is not the case.”⁸⁵

Limiting or banning certain services is an important tool in the range of possible options to tackle climate change. Banning garbage incinerators or limiting their numbers is just one example of a climate change policy that violates GATS market access commitments. Bans and quantitative limits are market access violations, even when these bans and limits are applied to both foreign and domestic companies.

In the US-Gambling case, the US made a forceful argument against a broad interpretation of GATS market access provisions:

“3.146...Members cannot effectively exercise the ‘right to regulate’ services that are the subject of a commitment if they lack any power to prohibit services within a sector or sub-sector that do not conform to the Member’s regulation. The right to regulate recognized in the GATS implies the power to set limitations on the scope of permissible activity...”⁸⁶

But the panel ignored the deregulatory implications and proceeded to rule that bans on services violate market access. The Appellate Body then upheld this

ruling.⁸⁷ The US-Gambling decision made it clear that opening services markets under the GATS can require deregulation. Rather than change its gambling regulations to conform to the GATS, the US chose to make substitute commitments of other services so that it could withdraw its gambling services commitment.⁸⁸

Initially spurred by a GATS industry lobby—the WTO Energy Services Coalition that was headed by Enron and Halliburton⁸⁹—expansion of energy commitments is part of the current negotiations.⁹⁰ Although energy generation does not fall under the GATS, a plurilateral request for energy service commitments has been made in such climate sensitive sectors as:

- Services incidental to mining (CPCprov classification 883.) These services include: “services rendered on a fee or contract basis at oil and gas fields, e.g. drilling services, derrick building, repair and dismantling services, oil and gas well casings cementing services.”⁹¹
- Site preparation work for mining (CPCprov classification 5115). These services include: “Tunneling, overburden removal and other development and preparation work of mineral properties and sites, except for mining oil and gas.”⁹² Services related to coal mining would be included.
- Construction work for civil engineering: for long distance pipelines, for local pipelines, and for constructions for mining. (CPCprov classifications 5134-5136).

Some WTO Members are also seeking commitments for electricity services.⁹³ In the US presidential election, candidates proposed banning new traditional coal-fired electrical plants or requiring a demonstrated need for them.⁹⁴ But these types of climate change policies could fall foul of GATS market access commitments for wholesale and retail sales of electricity. One of the GATS market access rules prohibits “limitations on the total value of service transactions or assets in the form of numerical quotas or the requirement of an economic needs test.”⁹⁵

For all energy services, the power “to prohibit services within a sector or sub-sector” and “to set limitations on the scope of permissible activity” could be key

to climate change mitigation. However, as the US found out in the dispute over its gambling laws, GATS market access commitments eliminate the possibility of imposing regulatory bans on the supply of a sector or sub-sector of service.

The governments that are being targeted to liberalize their energy sectors could list limitations on their commitments to try to safeguard their regulatory capacity. They cannot know when they finalize their commitments, though, what services they may want to prohibit in the future as more climate-preferable alternatives become available.

GATS commitments also curtail the possibility of change in government policy. World Bank official Aaditya Mattoo cites this as one of the benefits provided by the GATS, because “It is well known that the freedom to change one’s mind can be a nuisance.”⁹⁶ Once made, GATS commitments cannot be modified without negotiating substitute commitments that are acceptable to all WTO Members⁹⁷. In 2006, Venezuela formally withdrew the negotiating position on energy services it had submitted in 2001⁹⁸, a flexibility that is lost once negotiations are concluded.

3. “Disciplines” on standards, qualifications and licensing requirements

Unisfera, a sustainable development research centre, has drawn attention to the negative impacts of the GATS negotiations in one little-known area. In a report reviewing environmental assessments of services liberalization, Unisfera noted that:

“(T)he prevention of negative environmental impacts and enhancement of positive ones involves a mix of regulations and policies that may be affected by GATS provisions. While GATS recognises the right to regulate, some of its provisions could potentially impact governments’ capacity to regulate for environmental protection, especially if they are given broad interpretation or if a necessity test is adopted.”⁹⁹

The “necessity test” on regulation that Unisfera refers to has been proposed in the context of GATS negotiations mandated under Article VI to implement new restrictions on domestic regulation. Despite the

capacity under existing GATS provisions to challenge non-discriminatory regulations, WTO Members are pursuing much more extensive legal grounds to launch such challenges.

The chair of a GATS committee—the Working Party on Domestic Regulation—already has prepared drafts of these new GATS “disciplines” on regulation.¹⁰⁰ Even if a country’s regulations and regulatory procedures created no disadvantages for foreign companies compared with local ones, they could still be successfully challenged using the disciplines. Mireille Cossy, a Counsellor in the WTO’s Trade in Services Division, has explained the implications of disciplining non-discriminatory domestic regulations:

In effect, the current understanding that Article VI [Domestic Regulation] applies to non-discriminatory measures leads to the questionable consequence that WTO judiciary organs can rule on the ‘necessity’ of a measure which does not discriminate, whether de facto or de jure, against foreign services and service suppliers, but is seen as unsound from an economic point of view and has a possible restrictive effect on trade (this effect being the same for nationals and foreigners). As a consequence, it will allow a WTO judge to rule on societal choices (opening hours of shops, to take just one example), based on consideration of trade and economic efficiency. This is highly undesirable. Allowing the WTO judiciary system to dictate ‘sound’ economic and trade policies would be dangerous for the Organization as it would most likely be politically unacceptable for many Members. It would also depart from the historical role of GATT/WTO, which is to ensure access to markets and fair conditions of competition once in the market. No more, no less.¹⁰¹

For services where governments have made GATS commitments, every conceivable type of regulation would be affected by the disciplines. They would cover all of the following, including any measure that even “relates to” any of the following:

- requirements to obtain authorization—such as permits or licenses—to provide a service;

- the procedures involved in getting this authorization;
- standards for services, defined as the “characteristics of a service or the manner in which it is supplied”; and
- procedures related to enforcing standards.¹⁰²

Some countries are insisting that a necessity test should be included in the disciplines. If applied to green building standards, for example, a necessity test would mean weighing how strict these requirements were in relation to the importance their objectives.¹⁰³ The importance of a goal such as climate change mitigation would be left to a WTO dispute panel to determine. A government would also have to prove that it had no other options reasonably available to meet its objectives that were less burdensome to construction companies.

As noted in “The Stern Review on the Economics of Climate Change”, regulations are particularly important in the construction sector in order to achieve the behavioural adaptation necessary to mitigate climate change. Municipalities can encourage climate-friendly construction requiring that city buildings meet standards for energy efficiency, access to public transportation, and use of recycled or renewable materials. Some cities have gone further and required developers to meet environmental standards as a condition of getting approvals.

The City of Vancouver, for example, required development of a new waterfront neighbourhood to meet a minimum LEED (Leadership in Energy and Environmental Design) Silver standard. According to the city’s “Southeast False Creek Green Building Strategy, any industrial, residential, or commercial development in the area “must achieve a minimum baseline of environmental performance in all facets of building design and construction.”¹⁰⁴

Green building techniques are a specialized kind of construction. Even though Vancouver applied the same requirements to foreign and local companies, they could in the words of the WTO Secretariat¹⁰⁵ “be found to be more onerous to foreign suppliers”.

A panel could conclude that mandatory green building regulations were not necessary because the government's regulatory goals could be achieved through incentives or voluntary guidelines. The standards would have to be shown to significantly contribute to the achievement of their environmental goals. This would make a dispute panel, with no particular expertise in environmental regulations, the arbiter of controversial environmental issues. The LEED standard, for example, has been criticized in some quarters as not an effective environmental policy.¹⁰⁶

The most recent draft of the disciplines does not contain a necessity test, but includes other potential grounds that could be used to challenge climate change regulation. Regulations could be challenged for not being "objective", "relevant to the supply of the services to which they apply", and/or "pre-established." Licensing procedures would have to be "as simple as possible" and completed in "a reasonable timeframe."

Applying these proposed GATS restrictions to licensing for new oil and gas pipelines illustrates the potential for conflicts with climate change regulation. Services related to oil and gas pipelines are covered under "transport services via pipeline" (CPCprov 71310), "construction work for civil engineering" (CPCprov 51340), and "cleaning services of exhaust gases", which covers emission monitoring (CPCprov 9404).

Methane leaks from oil and gas pipelines are a significant cause of climate change, and according to MIT researchers "acting quickly to stanch the loss of methane could substantially cut warming in the short run."¹⁰⁷ A government's introduction of a standard on monitoring and mitigation of pipeline emissions could be challenged under the draft disciplines as breaking the "pre-established" rule. Pipeline licenses that had already been approved before the standard was introduced might¹⁰⁸ have to be exempt.

Standards for methane leaks might also be deemed to not be based on "objective criteria". "Competence and the ability to supply the service" are the examples given in the draft disciplines of what "objective" means, suggesting concerns external to the supplier/customer relationship might not be considered objective.

If a government implemented a standard for control of pipeline emissions that was higher than the international norm, that might also not meet an objectivity test. In his review of the meanings given to "objective" by the Secretariat and dispute panels, Professor Bob Stumberg found that one possible meaning is that a regulation has to be the least-restrictive alternative. According to Stumberg, "The least-trade-restrictive definition would require domestic law to conform with international standards or else risk conflict with the 'objectivity' requirement of GATS."¹⁰⁹

In addition, a standard to reduce methane leaks might not be considered as "relevant" if only considerations connected to customer satisfaction with the service are defined as "relevant". For example, the concerns of customers of pipeline services might be met by standards that ensure reliability; the impacts on the climate of methane leaks may be judged irrelevant.

Given the environmental concerns associated with pipeline construction, the proposed GATS disciplines to make licensing "as simple as possible" and completed in "a reasonable timeframe" skews government priorities towards commercial interests. The public interest in having input and getting thorough environmental impact assessments would be undermined.

4. Reducing the risk of WTO challenges to action on climate change

Given the risk of disputes between WTO rules and environmental initiatives, some concerned WTO Members as well as non-governmental organizations have proposed ways to reduce this risk. These proposals include strengthening exceptions for environmental regulations and creating exemptions for environmental subsidies.

Exceptions for the "environment", "sustainable development", and "conservation of exhaustible natural resources" all were considered, but ultimately dropped from the final text of the GATS.¹¹⁰ Some of the original delegations responsible for drafting the GATS seemed to have had second thoughts about leaving the conservation of natural resources exception out of the final version of the agreement. A Ministerial Decision at the end of the Uruguay Round requested the Committee on Trade and Environment to assess

the relationship between services trade and the environment to determine whether any modification of Article XIV exceptions were required.¹¹¹

The GATS, like the GATT, provides an exception under certain conditions for measures “necessary to protect human, animal or plant life or health”¹¹². But GATS Article XIV does not have an equivalent to the GATT Article XX(g) exception for measures “relating to the conservation of exhaustible natural resources if such measures are made effective in conjunction with restrictions on domestic production or consumption.” This omission in the GATS means climate change measures would be harder to justify, since having only one rather than two exceptions to use in a defence would decrease the chances of success in dispute settlement.

In addition, proving a measure is “necessary” is apt to be a lot harder than proving it is “related” to climate protection. Friends of the Earth’s primer on the GATS points out that “the absence of Article XX(g) is notable because its particular language—‘relating to...conservation’—is open to broader and more environmentally sensitive interpretation than is the case with the environmental exception currently in the GATS.”¹¹³

The Committee on Trade and Environment, however, has given the issue short shrift. A Secretariat paper¹¹⁴ downplaying the need for changes to the GATS may have had an influence. The Secretariat expressed the opinion that “for measures necessary to protect the environment, certain features of services trade are likely to result in a lower need to rely on the general exception...” The Secretariat argued that environmentally damaging effects of a service may be caused by the related goods, so restrictions on the relevant goods would be the preferable policy option.

This argument does not hold up in the case of key services related to climate change, such as refuse disposal, because it is more likely to be the service that needs to be regulated than the related goods. The Secretariat also suggested a new GATS environmental exception is not needed because governments can always renegotiate their commitments, something that is not easy to do. The need for a conservation exception in the GATS seems all the more necessary given the deregulatory implications of WTO panel

rulings on the agreement. Panels have stated in several cases now that the right to regulate ends where it conflicts with a government’s GATS commitments.¹¹⁵

Public Citizen has concluded that even the broader environmental exceptions in the GATT leave too much discretion to WTO panels. Public Citizen is recommending that health and environmental exceptions in all WTO agreements be made “self-judging”.¹¹⁶ This would mean that rather than WTO panels having the authority to determine what is necessary, this role would revert to governments. A model for such a change is provided in security exceptions to WTO agreements—a government can take “any action *which it considers necessary* for the protection of its essential security interests...”¹¹⁷

WTO Members have made a variety of proposals to shift the balance at the WTO in favour of the right to regulate for environmental reasons. New Zealand advocated in the early years of the Committee on Trade and Environment for an environmental “Understanding” to build on existing exceptions in WTO agreements. The proposed Understanding “would provide greater accommodation under WTO provisions (rules and associated exceptions) for use of trade measures for environmental purposes.”¹¹⁸

In 2006, the European Communities proposed a Ministerial Decision on Trade and Environment.¹¹⁹ The decision would have required that when disputes arose under a Multilateral Environmental Agreement that WTO Members would work to resolve them under the environmental agreement rather than turning to the WTO. The EC wanted recognition that Multilateral Environmental Agreements and the WTO agreements had “equal standing” under international law and neither kind of agreement was subordinate to the other. The EC also wanted WTO dispute panels to be required to defer to the Multilateral Environmental Agreement experts in relevant disputes. When confronted on this point at the Committee on Trade and Environment, the EC cited a precedent in a GATS provision that requires panels to involve financial experts when dealing with financial services disputes.¹²⁰

Fossil fuel subsidies have been criticized at the WTO, raising the possibility of a challenge.¹²¹ Friends of the Earth and the Centre for International Environmental Law recommend against using existing WTO subsidy

rules because these “focus on trade effects rather than on environmental effects.” Instead, the exemption for environmental subsidies could be restored in the Agreement on Subsidies and Countervailing Measures. This exemption was originally made part of the agreement on a temporary basis but it was allowed to lapse in 2000 after WTO Members could not agree on renewing it.¹²²

Given the daunting task of amending WTO amendments, which requires the assent of all Members, some trade experts are promoting negotiations among like-minded nations to establish a trade and environment code. In their book, *Global Warming and the World Trading System* Gary Hufbauer, Steve Charnovitz, and Jisun Kim have recommended the creation of a “Code of Good WTO Practice on Greenhouse Gas Emission Controls”. This book reviews the various WTO challenges that could be launched against climate change policies and the need to stave off litigation.

The proposed Code would act as a type of peace clause among WTO Members who are interested in acting on climate change and want to avoid disputes. “Green space” would be created “for climate measures that are imposed in a manner broadly consistent with core WTO principles even if a technical violation of WTO law could occur. Measures that conform to the green space rules would not be subject to challenge in WTO dispute settlement by governments subscribing to the code.”¹²³ Although WTO Members who had not signed on to the Code could still launch challenges against climate change measures, an agreement would nonetheless be worthwhile if it included key countries.

Conclusion

Efforts to expand trade in environmental goods and services through the WTO do not hold much promise in solving the problem of climate change, and this is not only because the negotiations in the Committee on Trade and Environment have reached a stalemate. Analysis of what actually promotes increased trade in environmental goods indicates lowering tariffs has—at best—a weak effect.

In terms of environmental services trade, from a climate change perspective there are strong reasons for not subjecting this trade to the rules of the GATS.

GATS commitments conflict with the ability to require technology transfer, to require joint ventures so that technology transfer can take place, to discriminate in favour of climate friendly services, and to limit or ban climate damaging types of services. Expanding GATS commitments will not help to mitigate climate change, and neither will amending the GATS to create new grounds for domestic regulation to be challenged.

Dispute panels have repeatedly stated that the existing GATS agreement already sets firm limits on the right to regulate. While a negotiated trade and environment code and expanded exceptions clauses could help to avoid challenges to climate change initiatives, perhaps the first priority for WTO Members should be to refrain from creating additional scope for these challenges in the first place.

Notes

1. Friends of the Earth, “Environmental laws lined up for removal by new trade talks”, news release, 18 April 2005.
2. Public Citizen, “Presidential Candidates’ Key Proposals on Health Care and Climate Will Require WTO Modifications”, February 2008.
3. FOE and CIEL, “Is World Trade Law a Barrier to Saving Our Climate—Questions and Answers”, September 2009.
4. *Ibid*, p. 4.
5. Another key WTO issue related to climate change is the impact of the Trade-Related Aspects of Intellectual Property Rights agreement. Professor Cameron Hutchison’s study of this question concludes: A strong argument could be made that...TRIPS...conflicts with obligations in the climate change regime to push technology transfer into developing countries...” http://papers.ssrn.com/sol3/papers.cfm?abstract_id=1019365.
6. WTO, “Doha WTO Ministerial 2001: Ministerial Declaration”, WTO Document WT/MIN(01)/DEC/1. Adopted on 14 November 2001.
7. WTO, “Trade and Environment: WTO and UNEP launch a report explaining for the first time the connections between trade and climate change”, WTO: 2009 Press Releases, 26 June 2009.

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8. WTO, "Trade and Climate Change—A WTO-UNEP Report", 2009, p. 53.
 9. In assessing the overall climate impact of any particular good, emissions from production of the good have to be taken into account and not only those related to transport. Longer distances for transport may be counterbalanced in their climate effects by more climate-friendly production methods.
 10. An assessment of the real costs of shipping associated with international trade is provided by James Corbett and James Winebrake in *A Handbook on Trade and the Environment*, ed by Kevin P. Gallagher. Corbett and Winebrake explain that the impacts of global shipping need to include the ports constructed for these ships and the inland transportation networks delivering goods to their ultimate destinations. Globalization of production has tended to increase the environmental damage from shipping, since ships have had to become faster and larger to accommodate global trade.
 11. *Ibid.*, p. 59.
 12. *Ibid.*, p. 60.
 13. WTO, "Doha could deliver double-win for environment and trade", speech by Pascal Lamy, 9 December 2007.
 14. WTO, "Trade and Climate Change—A WTO-UNEP Report", 2009, p. 55.
 15. Aaron Cosbey and Richard Tarasofsky, "Climate Change, Competitiveness and Trade", Chatham House Report, May 2007, p. vi.
 16. Xinhua General News Service, "Rich countries press for early deal on environmental goods", 1 December 2009.
 17. *Ibid.*
 18. Agence France Presse, "WTO states urge early deal on environmental goods", 1 December 2009.
 19. Xinhua General News Service, "Indonesia to refuse discussing climate change issue in WTO: official", 25 November 2009.
 20. WTO, "Communication from Cuba to the Committee on Trade and Environment in Special Session", WTO document TN/TE/W/73, 9 July 2008
 21. The International Centre for Trade and Sustainable Development, "Liberalization of Climate-friendly Environmental Goods: Issues for Small Developing Countries", Information Note Number 14, October 2009.
 22. WTO, "The Doha Round and Climate Change—Submission by Argentina to the Committee on Trade and Environment in Special Session", TN/TE/W/74, 23 November 2009.
 23. WTO, "Summary Report of the Twenty First Meeting of the Committee on Trade and Environment in Special Session—1–2 November 2007", WTO document TN/TE/R/21, 29 April 2008.
 24. WTO, "Committee on Trade and Environment in Special Session—Report of the Meeting Held on 10 July 2009", WTO document WT/CTE/M/47, 31 August 2009.
 25. WTO, "Energy taxation, subsidies and incentives in OECD countries and their economic and trade implications on developing countries, in particular developing oil producing and exporting countries—Submission by Saudi Arabia," WTO document WT/CTE/W/215, TN/TE/W/9, 23 September 2002.
 26. Dr.Veena Jha, "Climate change, trade and production of energy supply goods", presentation at ICTSD seminar, 20 July 2009.
 27. Dr.Veena Jha, "Environmental Priorities and Trade Policy for Environmental Goods: A Reality Check", ICTSD Issue Paper No. 7, September 2008, p. x.
 28. *Ibid.*
 29. The International Centre for Trade and Sustainable Development, "Liberalization of Climate-friendly Environmental Goods: Issues for Small Developing Countries", Information Note Number 14, October 2009, p. 7.
 30. The status of the Copenhagen Accord generally and commitments to funding in particular are uncertain, since the final decision of the delegations to the conference was to "take note" of it, rather than formally adopt it.
 31. Dr.Veena Jha, "Climate change, trade and production of energy supply goods", presentation at ICTSD seminar, 20 July 2009.
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32. The California Air Resources Board provides information on its Low Carbon Fuel Standard Program at: <http://www.arb.ca.gov/fuels/lcfs/lcfs.htm#background>.
33. Government of Canada, Minister of Natural Resources Lisa Raitt, letter to California Governor Arnold Schwarzenegger, 21 April 2009.
34. Simon V. Potter, "Fighting Back Against California's LCFS: Legal Recourses Available to the Government and Private Sector", McCarthy Tetrault presentation to the Canadian Energy Research Institute, Calgary, 27 May 2009.
35. WTO, Brazil—Measures Affecting Imports of Retreaded Tyres, Report of the Appellate Body", WTO document WT/DS332/AB/R, 3 December 2007, paragraph 151.
36. Ibid.
37. Ibid.
38. Alexander E. Farrell and Daniel Sperling, "UC Davis A Low-Carbon Fuel Standard for California Part 1: Technical Analysis", August 1, 2007
39. Ibid, paragraph 155.
40. Some countries have objected to the idea that expanding trade in environmental services is the role of GATS negotiators. Brazil has complained about a double standard with some delegations insisting that the Committee on Trade and Environment should not touch services to avoid duplication of work, while at the same time they push for the Committee to negotiate environmental goods.
41. The countries asking for more environmental services commitments are: Australia, Canada, the European Communities, Japan, Korea, Norway, Switzerland, The Separate Customs Territory of Taiwan, Penghu, Kinmen and Matsu, and the United States. The countries targeted to make these commitments are: Argentina, Brazil, Chile, China, Colombia, Costa Rica, Egypt, India, Indonesia, Israel, Malaysia, Mexico, Namibia, New Zealand, Nicaragua, Nigeria, Pakistan, Peru, Philippines, Singapore, South Africa, Thailand, Turkey. The list is available at: <http://www.tradeobservatory.org/library.cfm?refID=78833>
42. OECD, "Trade that Benefits the Environment and Development—Opening Markets for Environmental Goods and Services", OECD Trade Policy Studies, 2005, p. 100.
43. Tony Warren and Christopher Findlay, "How Significant are the Barriers? Measuring Impediments to Trade in Services", Paper Presented at the 'Services 2000: New Directions in Services Trade Liberalization' Conference at the University Club in Washington, D.C., 1–2 June 1999, p. 5.
44. WTO, "Trade and Environment", Press Release, PRESS/559, 26 June 2009.
45. WTO, "Plurilateral Request Environmental Services", 28 February 2006, available at: <http://www.tradeobservatory.org/library.cfm?refID=78715>
46. WTO, "Council for Trade in Services Special Session—Report of the meeting held on 13 and 14 July 2000", WTO document S/CSS/M/4, 18 September 2000.
47. WTO, "Council for Trade in Services Special Session—Report of the meeting held on 5 and 6 October 2000", WTO document S/CSS/M/5, 1 December 2000.
48. WTO, "Communication from the European Communities and Their Member States—Classification Issues in the Environmental Sector", WTO document S/CSC/W/25, 28 September 1999.
49. Friends of the Earth, "Gone to Waste: The valuable resources that European countries bury and burn", October 2009, p.4.
50. Ibid, p. 20.
51. In 2005, the WTO Appellate Body made a pivotal decision in the US-Gambling case. The Appellate Body upheld a ruling that when governments make unlimited GATS market access commitments, they cannot ban all or any part of a service.
52. OECD, "Trade that Benefits the Environment and Development—Opening Markets for Environmental Goods and Services", OECD Trade Policy Studies, 2005, p. 96.
53. See, for example, the EU position paper, "GATS 2000: Environmental Services", WTO document S/CSS/W/38, 22 December 2000. In this paper the EU claims trade can increase technological transfer at the same time that it seeks elimination of "barriers" like
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joint venture requirements where this transfer is mostly likely to occur.

54. WTO, "Communication from the European Communities—Review of Progress in Environmental Services", WTO document JOB(07)/210, 12 December 2007.

55. WTO, "Report of the expert meeting on Definitions and Dimensions of Environmental Goods and Services in Trade and Development", WTO document TN/TE/INF/6, 14 July 2004.

56. WTO, "GATS: Participation of developing countries", online course on the GATS, available at: http://ares.unimet.edu.ve/faces/fpab17/omc/eol/e/wto06/wto6_16.htm#note2, accessed 22 December 2009.

57. WTO, "A Review of Statistics on Trade Flows in Services—Note by the Secretariat", WTO document S/C/W/27/Add.1, 30 October 2000.

58. UNDP and UNFCCC Secretariat, "Handbook for Conducting Technology Needs Assessment for Climate Change", September 2009.

59. *Ibid.*, p. 2.

60. WTO, "Communication from Australia, the European Communities, Japan, New Zealand, the Separate Customs Territory of Taiwan, Penghu, Kinmen and Matsu and the United States—Joint report on informal discussion on environmental services in the context of the DDA", WTO document TN/S/W/28, 11 February 2005.

61. WTO, "The 'Art of Scheduling'", WTO Trade in Services Division, Scheduling Workshop 09.

62. WTO, "Brazil—Schedule of Specific Commitments" WTO document GATS/SC/13, 15 April 1994.

63. WTO, "Tunisia—Schedule of Specific Commitments", WTO document GATS/SC/87, 15 April 1994.

64. European Commission, "GATS 2000 request from the EC and its Member States—Brazil", 2002, available at: <http://www.esf.be/pdfs/countries/Brazil%202003.pdf> <http://www.gatswatch.org/docs/offreq/EUrequests/Brazil.pdf>, and "GATS 2000 request from the EC and its Member States—Tunisia", available at <http://www.esf.be/pdfs/countries/Tunisia.pdf>.

65. Julian Arkell, "GATS and Domestic Regulation Disciplines and Sustainable Development: Principles and Operational Concepts: The Challenges". Presentation at ICTSD Roundtable on GATS and Domestic Regulation Disciplines, Geneva, 26 June 2006, p. 25.

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