

UNFCCC, THE KYOTO PROTOCOL, AND THE WTO – BREWING CONFLICTS OR ARE THEY MUTUALLY SUPPORTIVE?

ANITA M. HALVORSSSEN¹

I. INTRODUCTION

On December 10, 2007 Al Gore together with the Intergovernmental Panel on Climate Change (IPCC)² received the Nobel Peace Prize. The Norwegian Nobel Committee stated that it awarded the prize to promote peace and security:

Indications of changes in the earth's future climate must be treated with the utmost seriousness, and with the precautionary principle uppermost in our minds. Extensive climate changes may alter and threaten the living conditions of much of mankind. They may induce large-scale migration and lead to greater competition for the earth's resources. Such changes will place particularly heavy burdens on the world's most vulnerable countries. There may be increased danger of violent conflicts and wars, within and between states.³

In its fourth report published in February of 2007, the IPCC confirmed that greenhouse gases (GHGs) from human activities have "very likely" (90% probability) caused the increase in temperatures since 1750.⁴ The IPCC's synthesis report shows that the level of GHGs has already reached critical levels.⁵ The likely

1. Adjunct Professor, University of Denver, Sturm College of Law; Lecturer, University of Colorado, Political Science Department; Director, Global Legal Solutions, LLC (e-mail: amhalvorss@aol.com). This paper is based on a presentation given at the ILSA conference at the University of Denver Sturm College of Law on October 12, 2007.

2. The IPCC, a UN body of 2,000 scientists, was established by the WMO and UNEP in 1988 to build awareness on climate change and measures that need to be adopted. It played an important role in establishing the committee that would negotiate the UN Framework Convention on Climate Change (UNFCCC).

3. The Norwegian Nobel Committee, *Announcement of the Awarding of the Nobel Peace Prize for 2007 to the IPCC and Al Gore*, Oct. 12, 2007, http://nobelpeaceprize.org/eng_lau_announce2007.html.

4. INTERGOVERNMENTAL PANEL ON CLIMATE CHANGE, CLIMATE CHANGE 2007- THE PHYSICAL SCIENCE BASIS: IPCC FOURTH ASSESSMENT REPORT *summary for policy makers* (2007) available at <http://www.ipcc.ch/ipccreports/ar4-wg1.htm> [hereinafter IPCC FOURTH].

5. INTERGOVERNMENTAL PANEL ON CLIMATE CHANGE, CLIMATE CHANGE 2007: FOURTH ASSESSMENT REPORT: SYNTHESIS REPORT, AT 30 (2007) available at http://www.ipcc.ch/pdf/assessment-report/ar4/syr/ar4_syr.pdf [hereinafter SYNTHESIS - IPCC FOURTH]; see also United Nations Environment Programme, *UNEP and WMO Panel Puts Final Full Stop Behind*

impacts of climate change include more frequent severe storms and droughts, sea level rise, ice cap and glacier melt, large-scale species extinctions, spread of disease carriers (of malaria, etc.) to more northerly latitudes, and 200 million environmental "refugees" by 2050.⁶

Lack of natural resources, violent conflicts, and wars, together with other effects of climate change will have major effects on the global economy.⁷ As one scholar described the situation, "[e]ven a 3°C rise in global average temperature would devastate the global environment, place human survival in grave danger, and risk the collapse of the world economy."⁸ The global response to climate change taken in the next 10-20 years could create risks of major disruption to economic and social activity, on par with those associated with World War I (WWI), World War II (WWII) and the Great Depression.⁹ Nicholas Stern projected that if action is not taken now, it may cost 5-20% of global GDP each year from now to address climate change.¹⁰ In his report, Stern states: "climate change is a serious global threat, and it demands an urgent global response."¹¹ Just as other financial institutions are addressing climate change, the World Trade Organization (WTO) needs to be working on how it can address climate change issues related to trade in a comprehensive manner.¹² On the other hand, actions taken under the climate treaties should focus on how such measures can take advantage of trade liberalization¹³ and avoid impediments to trade. This paper examines the relationship between the WTO and the UN Framework Convention on Climate Change (UNFCCC) with its Kyoto Protocol and indicates how it needs to change in order to facilitate the urgent action needed to address climate change. This paper then suggests that in the course of the Doha negotiations on trade and environment, the WTO membership should negotiate and adopt an agreement on the trade-related aspects of climate change law to promote emissions trading, address labeling requirements for GHG emissions and other climate-related process and production method (PPM)-based policy measures, and include the

Risks and Rewards of Combating Climate Change (Nov. 17, 2007), available at <http://www.unep.org/Documents.Multilingual/Default.asp?DocumentID=521&ArticleID=5707&l=en>; see also IPCC Synthesis Report: Risks and Rewards of Combating Climate Change, Science Daily (Nov. 20, 2007), available at <http://www.sciencedaily.com/releases/2007/11/071119122043.htm>.

6. *Id.*; see also Climate.org, Climate Institute's Programs – Environmental Refugees, <http://www.climate.org/2002/programs/refugee.shtml> (last visited Aug. 11, 2008).

7. Natalia Tamarisa, *World Economic Outlook: Climate Change and the Global Economy*, IMF SURVEY MAGAZINE: IMF RESEARCH, Nov. 6, 2007, <http://www.imf.org/external/pubs/ft/survey/so/2007/RES1026A.htm>.

8. Erik B. Bluemel, *Unraveling the Global Warming Regime Complex: Competitive Entropy in the Regulation of the Global Public Good*, 155 U. PA. L. REV. 1981, 1983 (2007).

9. NICHOLAS STERN, STERN REVIEW: THE ECONOMICS OF CLIMATE CHANGE, http://www.hm-treasury.gov.uk/media/3/2/Summary_of_Conclusions.pdf.

10. *Id.*

11. *Id.*

12. See Steve Charnovitz, Trade & Climate: Potential Conflicts & Synergies, in BEYOND KYOTO: ADVANCING THE INTERNATIONAL EFFORT AGAINST CLIMATE CHANGE 164 (Pew Center on Climate Change 2003), available at <http://www.pewclimate.org/docUploads/Beyond%20Kyoto.pdf>.

13. *Id.*

terms of the proposed agreement on trade in climate friendly technology.¹⁴ In addition, this paper also recommends the establishment of a Committee on Trade and Climate Change to address all areas where climate issues intersect trade.

Part II gives an overview of the anthropogenic sources of greenhouse gas (GHG) emissions and how they are related to trade. Part III explains the goal, structure and trade-related articles of the UNFCCC and its Kyoto Protocol, especially Kyoto's flexible market mechanisms. Part IV provides a short overview of the WTO's history, purpose, and dealings with environmental issues. Part V analyzes the points of convergence between the UNFCCC, its Kyoto Protocol and the WTO rules. Finally, Part VI focuses on reforming the WTO rules in order to accommodate trade measures used by the Parties to the UNFCCC and the Kyoto Protocol in their implementation of their treaty commitments.

II. BACKGROUND

The main reason for the increase in GHG emission beyond the natural variability in climate change is human activity.¹⁵ This activity, usually classified as economic development, has impacted the balance of carbon dioxide (CO₂) and other GHGs in the atmosphere since the beginning of the industrial revolution, thus increasing the existing greenhouse effect or thickening the blanket of gases in the atmosphere.¹⁶ The climate change issue can be categorized as a market failure on a global scale.

At this point, the atmosphere is more like the last garbage dump on the planet and, unfortunately, it is soon to be filled to capacity. Some of the GHGs such as CO₂ can last at least a century in the atmosphere, so even if humans stop emitting CO₂, there is still too much in the atmosphere.¹⁷ In order to address the problem clearly, one must internalize the externalities; in other words, pay for the use of the atmosphere as the natural resource that absorbs the GHGs.

One way of doing this is by using a cap-and-trade approach to gradually reduce the CO₂ entering the atmosphere; another is by placing a tax on the CO₂. Either approach places a cost on CO₂. On the global level, the international community adopted the Kyoto Protocol to the UNFCCC, thus choosing the cap-

14. This paper suggests an agreement that would be more far-reaching than the proposed agreement covering trade in climate friendly technology. See OFFICE OF THE U.S. TRADE REPRESENTATIVE, SUMMARY OF U.S. AND EC PROPOSAL FOR LIBERALIZING TRADE IN ENVIRONMENTAL GOODS AND SERVICES IN THE WTO DDA NEGOTIATIONS (2007), available at http://www.ustr.gov/assets/Document_Library/Reports_Publications/2007/asset_upload_file479_13638.pdf.

PPM can be defined as "any activity that is undertaken in the process of bringing a good to market. JASON POTTS, THE LEGALITY OF PPMs UNDER THE GATT: CHALLENGES AND OPPORTUNITIES FOR SUSTAINABLE TRADE POLICY, International Institute for Sustainable Development 1 (2008). http://www.iisd.org/pdf/2008/ppms_gatt.pdf (last visited June 23, 2008).

15. IPCC FOURTH, *supra* note 4, at 100.

16. *Id.* at 95.

17. University Corporation for Atmospheric Research, Understanding Climate Change, Global Warming Frequently Asked Questions, The Greenhouse Effect, <http://www.ucar.edu/news/features/climatechange/faqs.jsp> (last visited April 3, 2008).

and-trade approach, although carbon taxes are used domestically by several states.¹⁸

III. THE ROAD TO KYOTO

The UNFCCC was adopted in 1992¹⁹ and the Kyoto Protocol to the UNFCCC in 1997.²⁰ The UNFCCC stipulates in Article 2 the objective of the treaty in rather vague terms:

[S]tabilization of greenhouse gas concentrations in the atmosphere at a level that would *prevent dangerous anthropogenic interference with the climate system*. Such a level should be achieved within a time-frame sufficient to allow ecosystems to adapt naturally to climate change, to ensure that food production is not threatened and to enable economic development to proceed in a sustainable manner.²¹

The UNFCCC did not stipulate what the level of “dangerous anthropogenic interference” would be. The IPCC in its Fourth Assessment Report determined the goal should be to stabilize at 440-500ppm within the next 20-40 years in order to avoid worsening the situation.²² Yet, in 1992 when the UNFCCC was adopted, it did not mandate any emission cuts; it only “urged” Annex I (developed countries) to reduce their GHGs to 1990 levels.²³ The measures used demonstrated that developed states were committed to take the lead in reducing GHG emissions.

Non-Annex I Parties (developing countries), however, were not given such an “aim” to reduce GHGs. However, all Parties were required to fulfill binding commitments to report on their national inventory of anthropogenic emissions and measures taken to implement the UNFCCC.²⁴ At the first Conference of the Parties to the UNFCCC (COP-1), the Parties adopted the Berlin Mandate where they stated that more action needed to be taken to address climate change and that the developed countries were to “take the lead.”²⁵ The result of the process started in Berlin was the adoption of the Kyoto Protocol in 1997.

18. See generally United Nations Framework Convention on Climate Change, *opened for signature* May 29, 1992, 1771 U.N.T.S. 107 (entered into force Mar. 24, 1994) [hereinafter UNFCCC].

19. *Id.* The Climate Convention has near universal participation with 192 Parties as of Jan 20, 2006. See Climate Change Secretariat, UNFCCC *Status of Ratification*, http://unfccc.int/files/essential_background/convention/status_of_ratification/application/pdf/unfccc_convention_rat.pdf (last visited Mar. 10, 2008).

20. Kyoto Protocol to the United Nations Framework Convention on Climate Change, *adopted* Dec. 10, 1997, 37 I.L.M. 22 (entered into force Feb. 16, 2005) [hereinafter Kyoto Protocol]. As of June 24, 2008, there were 182 Parties to the Kyoto Protocol. See Kyoto Protocol, *Status of Ratification*, http://unfccc.int/files/kyoto_protocol/background/status_of_ratification/application/pdf/kp_ratification.pdf (last visited Mar. 10, 2008).

21. UNFCCC, *supra* note 18, Art. 2.

22. SYNTHESIS – IPCC FOURTH, *supra* note 5.

23. UNFCCC, *supra* note 18, Art. 4(2)(b).

24. *Id.*

25. Conference of the Parties to the Framework Convention on Climate Change, March 28 – April 7, 1995, *Report of the Conference of the Parties*, 1/CP.1, U.N. Doc. FCCC/CP/1995/7/Add.1 (June 6, 1995) [hereinafter Berlin Mandate].

The Kyoto Protocol was the first global treaty to introduce binding GHG emission reduction targets for Annex I Parties.²⁶ These targets are expressed in terms of assigned amounts or allowed emission, which can be divided into assigned amount units (AAUs) similar to pollution permits or allowances.²⁷ In the first commitment period, 2008-2012, the Annex I Parties are required to reduce their GHGs to an average of 5.2 percent below their 1990 levels as specified in Annex B.²⁸ The idea is that these commitments will be made more stringent over time, hence, reducing the GHG emissions even further. At the last Conference of the Parties to the UNFCCC, COP-13 in Bali, the Parties agreed to negotiate an agreement by 2009 to address how to include mitigation commitments or actions for developing countries, especially the fast-growing ones such as China and India, in addition to re-engaging the United States, and strengthen Kyoto's Annex I commitments.²⁹

A. Kyoto's Flexible Market Mechanism

The Kyoto Protocol introduced three market-based mechanisms to facilitate the implementation of the Annex I Parties' commitments, thus in effect setting the stage for a cap-and-trade system. The three mechanisms are emissions trading, joint implementation (JI), and the clean development mechanism (CDM).³⁰ These mechanisms are considered a cost-effective way for Annex I Parties to meet their binding emission reduction commitments. This allows Annex I Parties to make use of lower-cost opportunities to reduce emissions, irrespective of the territory of the Party in which those opportunities exist.

Emissions trading enables Annex I Parties (developed countries) or entities within these Parties to trade allowances with other Annex I Parties.³¹ Annex I Parties acquire AAUs from other Annex I Parties and use them towards meeting their emissions targets under the Kyoto Protocol. If they are able to bring down their own emissions below the commitment level, then Annex I Parties may prepare to sell units they do not require for compliance. Annex I Parties are required to hold a minimum level of units in its national registry to avoid "overselling" units and subsequently being unable to meet their own emissions targets.³² In addition, emission trading "shall be supplemental to domestic actions."³³

A cap and trade system needs a strictly enforced cap to make CO2 credits scarcer, and hence, more valuable. This would increase the incentive for businesses to control their emissions. Clearly, this mechanism is taking advantage of the free

26. Kyoto Protocol, *supra* note 20, art. 3 and Annex B.

27. *Id.* See also MICHAEL B. GERRARD, GLOBAL CLIMATE CHANGE AND U.S. LAW 43 (2007).

28. GERRARD at 42.

29. UNFCCC Ad Hoc Working Group on Long-term Cooperative Action under the Convention, *Revised Draft Decision -/CP.13*, ¶ 3 - 4, U.N. Doc. FCCC/CP/2007/L.7/Rev.1 (Dec. 14, 2007) available at http://unfccc.int/files/meetings/cop_13/application/pdf/cp_bali_act_p.pdf.

30. Kyoto Protocol, *supra* note 20, arts. 26, 35, 38, 40.

31. *Id.* art. 17.

32. See GERRARD, *supra* note 27, at 43.

33. *Id.*

market system. This would imply that the Kyoto Protocol would have nothing to gain from a system where impediments were put in the way of trade liberalization. The EU launched the European Union Emission Trading Scheme (ETS), the first international emissions trading mechanism, on January 1, 2005.³⁴ The current price for carbon is around €7/tCO₂.³⁵ The carbon price is the price of an allowance to emit one metric ton of carbon dioxide.³⁶

The CDM is a very different type of flexible mechanism from emissions trading. It enables Annex I Parties or private entities in the developed countries to carry out projects that reduce GHG emissions in the territory of non-Annex I countries in return for credits they can apply toward their own emission reduction commitments under the Kyoto Protocol.³⁷ Once the project is certified, the Annex I Parties are issued Certified Emission Reductions (CERs).³⁸ These projects are also required to promote sustainable development in the host state, the non-Annex I Party. CERs were allowed to generate from CDMs starting from the year 2000. This mechanism promotes foreign direct investment (FDI) in developing countries. Just as with emissions trading and JI project, CDMs are to be supplemental to measures taken domestically in Annex I Party countries.³⁹ Also the CDM projects, just as the JI projects, are to be additional to the GHGs emission reduction that would have occurred without the project.⁴⁰ Furthermore, 2% from the proceeds from CDM projects (CERs) are levied to assist developing countries most vulnerable to climate change to meet adaptation costs.⁴¹

Joint Implementation is structured to enable Annex I Parties to receive credits - emission reduction units (ERUs) - they can use toward their own emission reduction targets by implementing projects in the territory of another Annex I Party that reduce emissions or increase removals by sinks.⁴² Most projects will likely take place in states with economies in transition (EITs) where emissions can be cut at a lower cost than in the OECD states.⁴³

34. The Pew Center on Global Climate Change, The European Union Emissions Trading Scheme (EU-ETS) Insights and Opportunities, http://www.oebu.ch/oebu/downloads/eu-ets_0505.pdf (last visited Apr. 16, 2008).

35. Pointcarbon.com, <http://www.pointcarbon.com/Home/Carbon%20Market%20Daily/article6521-632.html> (last visited June 22, 2008) (daily updates on the price of carbon).

36. Press Release, euets.com, European Energy Auction and New Values merge their activities into Climex, a leading spot CO₂ exchange for EUAs and CERs (Feb. 14, 2008), available at <http://euets.com/index.php?page=news&newsid=65&l=1>.

37. Kyoto Protocol, *supra* note 20, art.12.

38. *Id.* art. 12(3)(a).

39. *Id.* art. 12(2).

40. *Id.* art.12(5)(c).

41. *Id.* art.12(8).

42. *Id.* art. 6(1).

43. UNFCCC: A GUIDE TO THE CLIMATE CHANGE CONVENTION AND ITS KYOTO PROTOCOL 29 (2002), <http://unfccc.int/resource/guideconvkp-p.pdf>.

IV. WTO BACKGROUND

The original global trade regime was planned toward the end of WWII to prevent another world war.⁴⁴ Part of the reasoning was that protectionism was an element in the conflict, so by establishing a system to promote free trade by reducing trade barriers, similar conflicts would be avoided.⁴⁵ In 1947, the General Agreement on Tariffs and Trade (GATT) was adopted. This agreement operated a system of trade rules without having a formal organization because the International Trade Organization was never established.⁴⁶ Then, in 1995, the WTO was established to administer the trade agreements, now under an umbrella agreement.⁴⁷

The goal of the WTO is to improve the welfare of peoples by, among other things, “raising their standard of living” and “expanding the production of trade in goods and services, while allowing for optimal use of the world’s resources in accordance with the *objective of sustainable development* seeking both to protect and preserve the environment and to enhance the means for doing so...”⁴⁸ The effects of climate change will destroy the possibility of reaching that goal in the long term. Strong measures need to be taken to address climate change by all actors in society, at domestic and international levels, including the WTO.

In 1971, the GATT General Council established the Group on Environmental Measures and International Trade (EMIT Group) to deal with environment related issues, however it was never convened.⁴⁹ The Committee on Trade and Environment (CTE) was established under the WTO in 1995 to take over from the EMIT Group.⁵⁰ However, CTE can only make *recommendations* for changes in the WTO rules.⁵¹

The first landmark case addressing trade and environment issues was the Tuna Dolphin Case.⁵² The United States acting under its Marine Mammal Protection Act banned tuna from Mexico, Venezuela, and other nations whose dolphin kill was over 1.25 times the dolphin kill of the United States.⁵³ Mexico challenged this ban stating it breached the WTO rules covering the prohibition on

44. Sandra Blanco & Enrique Carrasco, *The Functions of the IMF and the World Bank*, 9 TRANSNAT'L L. & CONTEMP. PROBS. 67, 70 (1999)

45. RAJ BHALA, INTERNATIONAL TRADE LAW: THEORY AND PRACTICE, 127 (2nd ed. 2000); *see also* WTO, Understanding the WTO: Basics - The GATT years: from Havana to Marrakesh, http://www.wto.org/english/thewto_e/whatis_e/tif_e/fact4_e.htm.

46. *Id.*

47. *Id.*; *see also* WTO, Understanding the WTO: Basics – What is the World Trade Organization?, http://www.wto.org/english/thewto_e/whatis_e/tif_e/fact1_e.htm. Agreement Establishing the Multilateral Trade Organization [World Trade Organization Agreement], Dec. 15, 1993, 33 I.L.M. 13 (emphasis added).

48. *Id.*

49. GARY P. SAMPSON, THE WTO AND SUSTAINABLE DEVELOPMENT 18-19 (2005).

50. *Id.* at 27.

51. *Id.* at 28 (emphasis added).

52. WTO, Environment: Disputes 4: Mexico versus US: ‘tuna-dolphin,’ http://www.wto.org/english/tratop_e/envir_e/edis04_e.htm [hereinafter *Tuna-dolphin*].

53. BHALA, *supra* note 45 at 1593.

quantitative restrictions.⁵⁴ The GATT panel ruled in favor of Mexico, determining that a state could not discriminate between domestic and imported “like products” based on the production method.⁵⁵ However, the report was never adopted by the GATT General Council and the case was withdrawn by the United States and Mexico.⁵⁶

The Shrimp Turtle Case is considered a breakthrough for environmental protection.⁵⁷ It was the first case dealing with the environment to be decided by the WTO Panel and Appellate Body.⁵⁸ In this case, the United States banned shrimp imported from states that did not use “turtle excluder devices” as specified under the US Endangered Species Act.⁵⁹ India, Malaysia, Pakistan, and Thailand claimed the ban breached the WTO rules on the elimination of quantified restrictions.⁶⁰ The United States claimed the ban was legal under Article XX exception of GATT 1994.⁶¹ The United States appealed the Panel’s report ruling against it. The Appellate Body decided the measure stipulated by the US law was legitimate under the XX(g) exception. However, the Appellate Body concluded that the exception was applied in an arbitrary and discriminatory manner, hence, the Appellate Body ruled against the United States. This ruling has opened the door to the possibility of the WTO deciding future cases in favor of states utilizing measures to address the PPMs, not just the products’ attributes. In the context of climate change, WTO member states can perhaps claim Art.XX(g) directly when taking measures against other members’ products *produced* using highly GHG emitting energy sources. The argument would be that the PPM measures were used for the protection of an exhaustive natural resource, specifically the climate system which is being endangered by GHG emissions.

V. THE RELATIONSHIP BETWEEN THE WTO AND THE CLIMATE TREATIES

In general, the WTO rules and the climate treaties are mutually supportive in the quest for improving the welfare of humankind through greater economic efficiency.⁶² The trade-related measures included in the climate treaties address market failures, for example, by phasing out subsidies in GHG emitting sectors,⁶³ and hence removing trade restrictions. In their relationship with trade, the UNFCCC and the Kyoto Protocol both specifically address the issue. The UNFCCC stipulates that the Parties are to support an open international economic system and not use measures that constitute a means of arbitrary or unjustifiable

54. SAMPSON, *supra* note 49, at 98.

55. *Id.*; see also *Tuna-dolphin*, *supra* note 52.

56. BHALA, *supra* note 45, at 1593.

57. Report of the Appellate Body, *United States - Import Prohibition of Certain Shrimp and Shrimp Products*, ¶2, WT/DS58/AB/R (Oct. 12, 1998), available at http://www.wto.org/english/tratop_e/dispu_e/58abr.pdf [hereinafter *Shrimp-turtle*].

58. SAMPSON, *supra* note 49, at 99.

59. *Shrimp-turtle*, *supra* note 57.

60. *Id.* at ¶1.

61. *Id.* at ¶ 10. General Agreement on Tariff and Trade, 1994, Art. 1, 1867 U.N.T.S 187 (entered into force Jan. 1, 1948) [hereinafter GATT].

62. See Charnovitz, *supra* note 12 at 143.

63. IPCC FOURTH, *supra* note 4.

discrimination or a disguised restriction on international trade.⁶⁴ The Kyoto Protocol states that the Parties are to implement measures in such a manner that they minimize the adverse effects on international trade.⁶⁵ WTO rules, on the other hand, facilitate implementation of trade-related climate measures by ensuring that measures are actually used to address climate change. However, the climate regimes are preventative, while the WTO dispute system focuses on addressing treaty violations, which leads to a lack of clarity in many instances, influencing the choice of climate policies.⁶⁶

The UNFCCC and its Kyoto Protocol, unlike other multilateral environmental treaties, are not just focused on the environment. If fully implemented, these instruments will shift the paradigm of economic activity, moving the global market from a fossil-based economy to a low-carbon economy, in part by using the market-based mechanisms. This leads to fundamental changes in the bases of production and consumption, transport, investment, and sources of energy.⁶⁷ None of the climate treaties require that the Parties impose trade measures, yet together with the market-based mechanisms available to the Parties and the non-compliance mechanism of the Kyoto Protocol, in addition to the trade-related measures utilized domestically in their implementation, the treaties may well be inconsistent with the WTO rules if they are not designed properly.⁶⁸ However, the idea that WTO operates in a vacuum is no longer viable. Making progress in addressing climate change, especially in regards to the treaty or treaties that the Bali Roadmap is scheduled to produce by 2009,⁶⁹ calls for changes in the relationship between the WTO and the climate change regime. Any trade measures inserted into the climate treaties should be carefully written in order to avoid conflicts with the WTO rules and the WTO rules need to become more sensitive to the new scenario of trade-related measures used to address climate change.⁷⁰

One of the arguments for the tension between the WTO and the climate regime is that the non-Parties to the climate regime will get a free ride or should be considered to have a subsidy because they do not need to take measures to address climate change. However, examining which States are Parties to the UNFCCC and its Kyoto Protocol and which States are members of the WTO reveals that all Parties to the UNFCCC are either members of the WTO or WTO observers.⁷¹

64. UNFCCC, *supra* note 18, art. 3, ¶5. This principle is also referenced in the preamble of the Kyoto Protocol.

65. Kyoto Protocol, *supra* note 20, art. 2, ¶3.

66. Charnovitz, *supra* note 12, at 144.

67. See Aaron Cosbey, *The Kyoto Protocol and the WTO*, INTERNATIONAL INSTITUTE FOR SUSTAINABLE DEVELOPMENT, at 1 (1999), <http://www.iisd.org/pdf/kyoto.pdf>.

68. Making the measures non-discriminatory, for instance, increases their chance of being WTO-compatible.

69. Rachmat Witoelar, President, 13th Session of Conference of Parties to the UN Framework Convention on Climate Change, The Bali Roadmap 1 (Dec. 15, 2007), http://unfccc.int/files/meetings/cop_13/application/pdf/close_stat_cop13_president.pdf.

70. Charnovitz, *supra* note 12, at 141, 163.

71. To be considered a WTO observer you must have started accession negotiations, in other words you are on your way to becoming a member. WTO, Understanding the WTO: How to Join the WTO: the accession process, http://www.wto.org/English/thewto_e/whatis_e/tif_e/org3_e.htm#join.

Only six members of the WTO, along with four of the WTO observers, are not Party to the Kyoto Protocol, yet all are members of the UNFCCC.⁷² This indicates that the membership of the WTO and the climate treaties are very nearly the same. Therefore, the issue of discrimination against non-Parties is very unlikely to be a big issue, except in the case of the United States, which is the only Annex I Party of the UNFCCC which is a member of the WTO, but not a Party to the Kyoto Protocol.

A lot of focus has been placed on the issue of what the EU is willing to do vis-à-vis the United States in the case of competitiveness concerns because the United States has failed to ratify the Kyoto Protocol. When the EU imports products from the United States, the companies producing them have not been subject to emission reduction measures such as carbon taxes. Hence, the American companies enjoy a competitive advantage over the EU companies. The EU may introduce border adjustment taxes to level the playing field. That way the good American goods would face a tax at the border equivalent to the carbon tax faced by the domestic producers.⁷³ Another option is for the EU to impose a carbon levy directly on imported products from the United States, claiming that it is qualified to do so directly under Art. XX(g). Specifically, the EU could claim that the United States products are produced using PPMs that damage the environment.

In the use of flexible mechanisms under the Kyoto Protocol, there is an ongoing debate as to whether the allowances or credits that Annex I Parties can buy or sell to each other constitute “goods” or “products” under the WTO rules. Trading exclusively between Annex I Parties may breach the most favored nation (MFN) principle, discriminating against non-Annex I Parties under GATT 1994.⁷⁴ Several scholars claim the allowances are more likely to be classified as “securities,” in other words, transferable financial instruments.⁷⁵ In such cases, it is not the GATT rules but the General Agreement on Trade in Services (GATS) rules that come into play. The MFN principle under GATS would mean allowing traders from all countries to handle trades of allowances.⁷⁶

VI. REFORMING THE WTO

Amending the WTO to include a clause similar to the NAFTA provision, giving precedence to multilateral environmental agreements (MEAs) if NAFTA obligations and MEAs are not compatible, would be one way to avoid some of the

72. WTO members that are members of the UNFCCC, but not Kyoto: Brunei, Darussalam, Chad, Turkey, United States, and Zimbabwe. WTO observer governments that are Parties to the UNFCCC, but not Kyoto: Afghanistan, Andorra, Holy See, and Tajikistan. UNFCCC has 192 parties and the Kyoto Protocol has 182 Parties, while the WTO has 152 Member States. *See* WTO, Understanding the WTO-Member and Observers List, http://www.wto.org/english/thewto_e/whatis_e/tif_e/org6_e.htm (last visited June 23, 2008); UNFCCC, *supra* note 18; Kyoto Protocol, *supra* note 20.

73. Cinnamon Carlarne, *The Kyoto Protocol and the WTO: Reconciling Tensions Between Free Trade and Environmental Objectives*, 17 *COLO. J. INT'L ENVTL. L. & POL'Y* 71 (2006).

74. GATT, *supra* note 61.

75. *See* Carlarne, *supra* note 73, at 45, 58.

76. *See* GATT, *supra* note 61, art. 1.

above-mentioned problems.⁷⁷ Another possibility is to amend Article XX under GATT 1994 to include a provision validating MEAs, making an exception for trade measures adopted under MEAs⁷⁸ that would otherwise be questionable under GATT.

Taking into account how urgent and all-encompassing the climate change problem is, the WTO should adopt a an agreement on the trade-related aspects of climate change law under its auspices. This agreement would address all the issues described above and would include the transfer of clean technology and services as already suggested by the EU and the United States. Also in the same overarching perspective, a Committee on Trade and Climate Change should be established to focus on all the trade issues that will arise in conjunction with the effects of measures to mitigate and adapt to climate change in the short and long term.

VII. CONCLUSION

Climate change is a serious issue that needs urgent action immediately. Measures taken under the climate change treaties should focus on how to take advantage of trade liberalization while avoiding impediments to trade.⁷⁹ The WTO needs to be working on how it can address climate change issues related to trade in a comprehensive manner.⁸⁰ This paper has demonstrated how the climate change treaties and the WTO regime have the same goal, namely, promoting human welfare. This paper has also examined the relationship between the WTO and the UN Framework Convention on Climate Change with its Kyoto Protocol and has indicated how the WTO needs to change in order to enable the urgent action needed to address climate change. This paper then suggested that, in the course of the Doha negotiations on trade and environment, the WTO membership should negotiate and adopt an agreement on the trade-related aspects of climate change law to promote emissions trading, address labeling requirements for GHG emissions and other climate-related PPM policy measures, and include the terms of the proposed agreement on trade in climate friendly technology.⁸¹ In addition the WTO should establish a Committee on Trade and Climate Change to address all areas where climate issues intersect with trade issues.

77. North American Agreement on Environmental Cooperation, U.S.-Can.-Mex., art. 40, Sept. 14, 1993, 32 I.L.M.1480.

78. See Carlarne, *supra* note 73, at 85.

79. Charnovitz, *supra* note 12 at 164.

80. *Id.*

81. OFFICE OF THE U.S. TRADE REPRESENTATIVE, *supra* note 14.