Abbreviated Title: Domestic Implementation of the Kyoto Protocol

Full Title: **Domestic Implementation of the Kyoto Protocol: Potential for WTO** Conflict Author: Sikina Jinnah Affiliation: PhD Student University of California, Berkeley Department of Environmental Science, Policy and Management Division of Society and Environment Author Address: 2315 Woolsey St. Apt. B Berkeley, CA 90277 USA (510) 540-5436 sjinnah@nature.berkeley.edu (510) 643-2504 (fax)

Abstract: The Kyoto Protocol provides general terms dictating that members adopt policies aimed at the promotion of sustainable development; however the Protocol does not stipulate the specific methods by which members should design and implement these policies. Lack of harmonization in domestic implementation of the Protocol's commitments makes it more likely that trade conflicts will arise. Though a review of the relevant literature, this paper discusses the potential arenas for conflict between domestic implementation of the Protocol and member obligations under the WTO. This article focuses on domestic implementation of the Protocol's sustainable development requirements contained in Article 2, and discusses how various implementation strategies may create conflict of obligations under the WTO. The specific strategies discussed include government subsidies, product regulations, energy efficiency standards, eco-labeling, carbon taxes, procurement policies, and border tax adjustments. I conclude that while careful domestic implementation of many of these policies may rule out some possibilities for conflict, it is difficult to assess how effective (in terms of problem solving) these policies will be. Furthermore, I conclude that while the Kyoto Protocol is relatively "WTO proof", it weakens regime requirements in terms of problem solving, as well as disharmonizes domestic implementation strategies. In doing so, it displaces the risk of non-compliance onto individual states and effectively removes the protective MEA framework, under which conflict is less likely to occur.

Key Words: implementation, Kyoto Protocol, regime conflict, WTO

I. Introduction

The Bush administration's rejection of the Kyoto Protocol appears to have sparked international concern surrounding the potential for conflict between domestic implementation of the Kyoto Protocol and the World Trade Organization (WTO) (Appleton 2001, Brack et al 2000, Brewer 2003, Brewer 2004, Charnovitz 2003, Murase 2003, Werksman 1999, Werksman et al 2001, Zhang 1998). As a staunch leader in the international trading regime, it is unlikely that the United States will permit flexibility when the interests of these two regimes conflict in a manner which harms U.S. trading interests abroad. There are four modalities by which conflict may arise between the Kyoto Protocol and the WTO including: (1) conflict of basic constitutional principles, (2) conflict in methods of regulation, (3) conflict arising from the means taken to ensure effectiveness, and (4) conflict arising from domestic implementation of the Kyoto Protocol.

The Kyoto Protocol provides general terms dictating that members adopt policies aimed at the promotion of sustainable development; however the Protocol does not stipulate the specific methods by which members should design and implement these policies. Lack of harmonization in domestic implementation of the Kyoto Protocol commitments makes it more likely that trade conflicts will arise (Brack et al 2000). Under the Kyoto Protocol domestic implementation policies fall into three broad categories (1) implementation of the Kyoto Protocol's flexibility mechanisms, ² (2) policies related to the use of trade sanctions as a means of ensuring compliance, ³ and (3) implementation of policies required by Article 2:1(a) of Kyoto Protocol.⁴ The final category is the focus of this article and may take the form of protective policy measures, designed to remedy competition inequalities at least partially resulting from U.S. non-participation in the Kyoto Protocol.

Drawing largely from work done by Brack et al. (2000), Assuncao and Zhang (2002), Appleton (2001), Bierman 2001, 2003), and Brewer (2003, 2004), this article will discuss the various arenas for potential conflict brought up in the literature thus far. Potential for conflict between the WTO and implementation of Kyoto Protocol Article 2 may arise with respect to (1) government subsidies, (2) product regulation and standards i.e. energy efficiency standards and

eco-labeling, (3) taxes and tax adjustments, and (4) government procurement policies. This paper concludes that although the Kyoto Protocol text itself is relatively "WTO proof," in order to comply with the obligations under both agreements, states will be forced to water down policies aimed at implementing the Kyoto Protocol. Lastly, this paper will conclude with a discussion of possible options for converting conflict into synergy, and suggest areas for further research.

II. Domestic Implementation of Kyoto Protocol Article 2

Article 2 of the Kyoto Protocol requires that Annex I nations implement domestic policies and measures aimed at the reduction of greenhouse gasses. It is likely that Kyoto member nations will also aim to alleviate competition inequities through use these domestic policy measures which may favor domestic industries over foreign competition (Assuncao & Zhang 2002). For example, governments may employ subsidies, energy efficiency standards, climate labeling, taxes, and/or procurement policies which may conflict with obligations under the WTO. This section will explore these various policy measures and their potential for conflict with WTO rules.

A. Government Subsidies

Governments may wish to use subsidies to assist industry sectors that are particularly hard hit by meeting Kyoto commitments, or to promote and reinforce climate mitigation measures (i.e. renewable energy production). Brack et al. suggests that government subsidies may take any number of forms including, but not limited to, direct subsidies, tax concessions, and loan guarantees. Depending on how these subsidies are implemented they may conflict with the WTO Agreement on Subsidies and Countervailing Measures (SCM) (Assuncao & Zhang 2002).

Appleton and Brack et al. agree that it is possible to implement subsidies in such a way as to avoid conflict with WTO rules altogether. They point out that in order for a subsidy to violate WTO rules it must confer benefit to a "specific" enterprise.⁵ They argue that a subsidy may be applied if done so in a neutral, horizontal, and legally defined manner, not favoring certain enterprises over others, and that eligibility must be automatic to any enterprise meeting the specified criteria (Appleton 2001, Brack et al 2000). Charnovitz gives the example of

government funding for new technologies to control wildfires (Charnovitz 2003). He explains that because this subsidy does not target any particular industry it would not meet the WTO "specificity" test, and would therefore not conflict with WTO obligations. Appleton also points out that not all subsidies are actionable. He points out that and in order for this criterion to be met, another Member must be able to *prove injury* which may not necessarily be the case under all circumstances. Lastly, Appleton points out that perverse energy subsidies are currently in place; however these subsidies remain unchallenged for political reasons.

Although, I agree with Appleton and Brack et al. in that subsidies can be applied is such a way as to avoid WTO conflict, their argument is largely limited to one type of government subsidy, i.e. those which promote development of climate mitigating technologies. This argument does not apply to Member nations that may seek to apply subsides so as to assist specific enterprises that are particularly hard hit as a result of implementing Kyoto's emission reduction commitments (e.g., electricity generation facilities or automobile manufacturers). This type of subsidy applied across the board, for which eligibility is automatic equally for all industries, is counterproductive to the goal of the subsidy. Related to this point, Annuncao et al. point out that subsidies are illegal if they are deemed either *de jure* or *de facto* specific. They give the example of the Dutch Flowers case in which a subsidy scheme available to all agricultural producers was agreed *not* to be *de jure* specific. However, because horticulture which makes up 24% of Dutch agricultural production, received 50% of the subsidies, the subsidy was found to be *de facto* specific and therefore in conflict with WTO rules (Assuncao & Zhang 2002). It is certainly conceivable that a similar situation may arise in the case of an energy related subsidy applied in the manner suggested by Brack et al. and Appleton above.

Lastly, both Appleton and Annuncao et al. point out that Article 8.2 (c) of the SCM Agreement provides for a one time non-actionable subsidy for firms adjusting to higher production costs as a result of new environmental regulations. While Appleton doubts that this clause remains on the books due to its lack of use (Appleton 2001), Annuncao et al. point out that it could be useful to help abate the "first shock" of meeting Kyoto Protocol emission reduction requirements (Assuncao & Zhang 2002).

B. Product Regulations and Standards

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Charnovitz suggests that product regulations and standards will be increasingly important in national climate policy (Charnovitz 2003). Brack et al. agree, and add that national implementation of product regulations and standards may lead to market access barriers resulting from the associated compliance costs of disharmonious regulations among nations (Charnovitz 2003). Although there seems to be some inconsistency in the literature as to how the terms 'regulation' and 'standard' should be differentiated, this paper will follow the format described by Charnovitz 2003. For the purposes of understanding compliance with trade regulations, the WTO differentiates between standards and regulations in terms of (1) implementing agency, and (2) compliance. 'Regulations' are state imposed and mandatory, while 'standards' are nonmandatory/voluntary and may be imposed by governments, international organizations, private bodies, or NGOs (Charnovitz 2003). The following discussion will focus on two types of product regulations and standards which may be attractive to governments trying to domestically implement GHG emission reduction strategies: energy efficiency regulations/standards and ecolabeling.

1. Energy Efficiency Regulations/Standards

In order to meet greenhouse gas reduction goals Kyoto member nations will have to undergo fundamental changes with respect to how energy is produced and used domestically (Assuncao & Zhang 2002). This shift will require enormous capital investments thereby driving up the short term production costs of both renewable energy and renewable energy intensive goods in complying nations. It is likely that Kyoto member governments will want to impose energy efficiency standards and/or regulations on both domestic and imported products so as to (1) assure compliance with Kyoto emission reduction requirements, (2) comply with Kyoto's requirements of promoting policies aimed at sustainable development, and (3) keep domestic products competitive with imports from non-complying or non-participating nations. TBT Agreement Article 2.2 restricts the use of regulations and standards for unilateral measures that are "more trade-restrictive than necessary to fulfill a legitimate objective." In addition, if implemented in such a way as to unduly discriminate against certain nations, this type of energy efficiency requirement may conflict with the GATT's MFN principle.

Clearly, this type of restriction would be likely to affect WTO members who are not party to the Kyoto Protocol, however it may also come into play between nations that are party to both treaties. For example, in planning efforts to meet commitments under the Kyoto Protocol, Japan implemented the Law Concerning Rationalization of the Use of Energy (Energy Conservation Law 1998) which places strict controls on emissions from automobiles. It is anticipated that, as a result of this regulation, by 2010 fuel consumption in Japan will decrease by 23%. In order to keep consumption levels down, Japan may restrict imports of automobiles not in compliance with their energy efficiency regulations. This type of restriction will be subject to scrutiny under the TBT. In fact the U.S. and the EU have already begun to voice concern about the implications of Japan's Energy Efficiency Law (Murase 2003). They argue that because it is based primarily on vehicle weight, it therefore disproportionately effects foreign imports in relation to domestically produced vehicles (Assuncao & Zhang 2002). Charnovitz points out that this example reinforces the fact that *any* national regulation having disparate trade effects on foreign producers will likely raise concerns under the TBT (Charnovitz 2003).⁶

How then does a nation ensure that the trade measure in question is not "more traderestrictive than necessary?" Assuncao & Zhang suggest that because the TBT allows for regulations/standards set in accordance with international standards, development of multilaterally agreed upon energy efficiency standards, applied harmoniously among nations, would avoid the problem (Assuncao & Zhang 2002). Brack et al. point out however that the costs associated with harmonization of energy standards/regulations would far outweigh the benefits. They point out the cost prohibitive nature of monitoring and enforcement due to the volume and diversity of products regulated, and the time and effort needed to constantly renegotiate standards based on consumer preferences would make such a standardization plan extremely difficult (Brack et al 2000).

The energy efficiency regulations discussed above refer to regulations affecting energy consumed through use of the product itself. The articles cited in this paper largely avoid discussion of the implications of efficiency regulations associated with energy used in production of products.⁷ This second category of product regulations/standards may be impermissible under WTO rules restricting discriminatory actions based on non-product related, process and production measures (NPR-PPMs). These concerns may be better addressed through use of ecolabeling as discussed below.

2. Eco-labeling

Eco-labeling refers to the use of a label on a product to identify it as environmentally preferable to alternative like products. Eco-labels provide consumers with a choice between purchasing products that contribute to environmental degradation and those that contribute less so. In doing so, the goal is to encourage production, consumption and disposal of more environmentally friendly products (Assuncao & Zhang 2002). Appleton argues that climate labeling is a necessary tool to further climate change regime goals not because it is the most effective trade measure available but because it plays an integral role in raising consumer awareness (Appleton 2001).

Under the climate regime, eco-labeling may be used to promote products produced through less energy intensive methods, or via methods that result in relatively low greenhouse gas emissions, i.e. through use of renewable energy sources in production. Climate-related ecolabeling focusing on products or PPMs, will fall under the jurisdiction of the TBT Agreement on Standards and would therefore need to adhere to the WTO Code of Good Practice which governs the preparation, adoption and application of such standards (Assuncao & Zhang 2002). In order to analyze the legality of a particular eco-labeling scheme we must look at (1) the type of label, i.e. voluntary or mandatory and (2) what is being labeled, i.e. product characteristics or process characteristics. In addition, whether the product is imported or domestic may also be an important factor in determining TBT compliance (Appleton 2001).

Appleton points out that mandatory labeling schemes are far more likely to conflict with WTO rules than voluntary schemes as the latter are generally less trade restrictive, and governed by arguably less restrictive TBT rules (Appleton 2001). However, he goes on to point out that even voluntary schemes may raise "standards" questions which would be subject to the rules of the TBT Agreement's Code of Good Practice. If this were the case it would be imperative that voluntary labeling schemes be "transparent, non-discriminatory, and open on equal terms to foreign participation" to comply with WTO rules (Appleton 2001). In a similar vein, another author suggests that voluntary labeling schemes often times are in fact discriminatory and non-transparent (Vitalis 2002).

Mandatory eco-labels that are strictly related to products and their related processes are permissible under WTO rules for environmental health and safety purposes. For example, mandatory labels describing product characteristics such as fuel efficiency would likely be permissible for both foreign and domestic products (Appleton 2001). If, however, the mandatory

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eco-label described NPR-PPM, i.e. CO₂ emitted in production or energy source used in production, it is unlikely that it would be permissible under the WTO, most certainly for foreign products (Loy 2002).

C. Taxes and Tax Adjustments

1. Domestic Carbon Taxes

A carbon tax refers to "an excise tax imposed on the carbon emitted in the manufacturing process of a product according to the carbon content of [input] fossil fuels" (Assuncao & Zhang 2002). A carbon tax differs from an energy tax in that carbon taxes are restricted to carbon-based fuels only (i.e. not nuclear energy).⁸ Carbon taxes may be an appropriate domestic policy tool to address climate change because it would reduce demand for energy, promote more efficient technologies, and lead to the adoption of cleaner energy (Charnovitz 2003). However, imposition of carbon taxes creates competitiveness problems in international markets.⁹ Specifically, domestic products that are subject to a carbon tax, may face unfair competition under two circumstances. First, they are disadvantaged in comparison to imports that have not been subject to similar levies prior to export. Second, they are at a competitive disadvantage in relation to these same products on the international market. Carbon taxes themselves would not necessarily present any *significant* incompatibility issues under the WTO,¹⁰ rather the ways in which governments may seek to correct for these competitiveness issues could raise WTO concerns.

There are three at least three distinct methods which could be used to correct for competitiveness problems associated with a carbon tax. The first, and most commonly used, is an exemption of energy-intensive and/or export oriented industries from the carbon tax (Assuncao & Zhang 2002, Brack et al 2000). However, this solution is not necessarily "WTO proof", nor is it acceptable on environmental protection grounds. Such an exemption could be seen as a subsidy incompatible with SCM Agreement rules. Furthermore, this solution greatly reduces the effectiveness of the carbon tax in terms of negating its ability to encourage significant reductions in carbon dioxide emissions through conversion to alternative energy sources. Additionally, this alternative generally leads to an increased tax rate on non-exempted sources as well as decreased overall revenue from the tax (Brack et al 2000). Rather than exempting the largest emitters, it would make far more sense to apply a tax further downstream

to encourage changes in consumption patterns, similar in strategy to the U.S. sales tax on cigarettes.

The second option available to correct for real or perceived competitiveness concerns is to recycle tax revenues back into the economy. For example, carbon taxes could be recycled back to industry through reductions in other taxes such as business or employment taxes, or recycled back in the form of R&D grants for the purposes of encouraging energy efficiency improvements (Brack et al 2000). This solution is more preferable to the exemption option, however, as Brack et al. point out it has drawbacks including the possibility of funding investments that industry would have invested in anyway. Furthermore, it is difficult to predict the industry response to a "fee-bate" system, and may not lead to any significant change in energy source production.

The third solution would be to adjust for such taxes at the border through a border tax adjustment. This solution is complex and problematic as it requires analysis of a "murky area of trade law" (Charnovitz 2003). It is unclear to what extent carbon taxes will be eligible for border tax adjustments under WTO rules. This alternative will be discussed in depth in the following section.

2. Border Tax Adjustments

Applying a border tax adjustment may alleviate competitiveness issues resulting from domestic application of a carbon tax. In applying an adjustment, an exporting government would rebate the carbon tax to the producer when the product is exported, and concurrently subject imported products to an identical carbon tax to that which is applied domestically.¹¹ This system would maintain competitiveness for domestically produced products both with regard to imports in domestic markets, as well as when exported to international markets. A border tax adjustment is formally defined by the GATT as:

"Any fiscal measures which put into effect, in whole or in part, the destination principle (i.e. which enable exported products to be relieved of some or all of the tax charged in the exporting country in respect of similar domestic products sold to consumers on the home market and which enable imports sold to consumers to be charged with some or all of the tax charged in the importing country in respect of similar domestic products.)"¹²

The GATT allows for border tax adjustments imposed on imported products if they are correcting for an indirect tax, i.e. taxes on sales, excise, turnover, or value-added taxes (Biermann & Brohm 2003). Of course, GATT Article III also requires that the tax be equally imposed on domestic like products. If the adjustment were on a direct tax, i.e. imposed on wages, profits, interests, rents, royalties, income or real property it would be unequivocally impermissible under the GATT (Biermann & Brohm 2003). For the purposes of this analysis, it is assumed that that a carbon tax is necessarily an indirect tax.

The permissibility of border tax adjustments for carbon taxes comes into question if the adjustment corrects for a tax on carbon used in production (a NPR-PPM based tax- i.e. tax on carbon used in production of a car),¹³ as opposed to carbon products themselves (i.e. tax on import/export of coal, gas, or oil). Under trade law, border tax adjustments for carbon taxes could certainly be applied to imports or exports of carbon products as long as the adjustment does not confer any disadvantage to foreign producers (Assuncao & Zhang 2002). However, it is unclear whether non-product related, process related carbon taxes (NPR-PPMs, e.g. fuel input related) could be adjusted for on the final product at the border. Specifically, the question is: can border tax adjustments be applied to the tax paid on carbon/energy used in production?¹⁴ This question would certainly be central to adjustments applied in relation to implementation of Kyoto Protocol commitments.

This question is further complicated because different rules apply to border tax adjustments on imports as opposed to exports. Border tax adjustments on imports are governed by the rules of the GATT, while border tax adjustments applied to exports must comply with the rules of the SCM. Each of these scenarios is discussed in turn below.

Imports

GATT Article II:2(a) permits border tax adjustments on imported products "in respect of an *article* from which the imported product has been manufactured in whole or in part." Biermann et al. aptly point out that the use of the word 'article' leaves ambiguity as to whether or not the input must be physically incorporated into the final product. If so, this would exclude adjustments on process related energy or carbon taxes.

Charnovitz, Brack et al. and Biermann et al. all point to the 1987 *Superfund* case¹⁵ for some direction on how a GATT panel may interpret the permissibility of a process related

indirect tax on imports. This case involved a challenge by the EC, Mexico and Canada to a U.S. border tax adjustment on products containing certain toxic chemicals, and on products that used those chemicals in the production process. With respect to the tax on chemicals used in production, the tax was applied when the taxable input chemical accounted for 50% (by weight) of the total chemicals used in production of the final product. The tax was applied to the total input volume of the taxable chemical, and was not adjusted if the final product contained a lesser portion (i.e. some of the chemical was consumed in production) (Brack et al 2000). The tax was therefore both related to the product itself, as well as to non-product related process and production was acceptable under the GATT. However, they remained silent as to whether the chemicals had to be physically present in the final product. This leaves significant ambiguity as to whether or not a tax on energy inputs used in the production process but not present in the final product would be eligible for such a tax adjustment (Biermann & Brohm 2003).

Brewer also addresses this issue in relation to the possibility that a border tax adjustment on imports might be acceptable under the GATT (and/or GATS) Article XX environmental exemptions (Brewer 2004). Brewer lays out a decision tree identifying tests through which a BTA would have to pass in order to be permissible and identifies potential hurdles for their application (Brewer 2004).

Exports

Rules governing border tax adjustments on exported products are slightly more complicated. Rebates are considered subsidies governed by the SCM Agreement which specifically allows for the "rebat[e] of prior-stage cumulative indirect taxes on goods and services used in the production of exported products – but only to the extent that the goods and services in question are consumed in the production process" (Brack et al 2000).¹⁶ As noted above, the SCM Agreement further defines "inputs consumed in the production process [as] inputs physically incorporated, energy, fuels and oil used in production process and catalysts which are consumed in the course of their use to obtain the exported product" (SCM Annex II footnote 61 cited in Brack et al. 2000). This might imply that energy and/or carbon fuels used in the production process *are* eligible for border tax adjustments. However, as Brack et al. point out, it is not quite that simple. These rules apply to 'prior-stage cumulative indirect taxes,' which by definition, they argue would not likely include carbon or energy taxes.¹⁷

In contrast to the conclusion reached above, Appleton questions whether or not an export border tax adjustment on carbon taxes would even be considered a prohibited subsidy under the SCM. He points out that an export border tax adjustment on carbon emissions, or carbon used in production, would not necessarily disadvantage trading partners pursuant to GATT Articles I and III (Appleton 2001, p.19)¹⁸ and may therefore not be challenged in the first place. Furthermore, following this line of reasoning, because no "benefit [would be] incurred" as required by the SCM Article 1(b), it is questionable that a challenge would be justified.

In the case that border tax adjustments for carbon taxes are impermissible under the WTO on either imports or exports, it is still possible that they may be acceptable under the GATT Article XX, which allows for environmental exemptions. However, Brack et al. and Charnovitz argue that border tax adjustments for carbon taxes will unlikely meet the requirements of Article XX.¹⁹

D. Procurement Policies

Government procurement expenditures account for 8-25% of GDP in OECD nations (OECD, 2000 cited in Assuncao & Zhang 2002). Therefore, public purchasing decisions have the potential to substantially impact member nations' ability to achieve GHG reduction goals. The question is: can WTO member governments base purchasing decisions on NPR-PPMs? The answer requires a closer look at the text and interpretations if the international rules governing government procurement as discussed below.

Government procurement is exempted from the GATT, it is instead covered by the WTO Annex 4 plurilateral Agreement on Government Procurement (AGP). As noted above, the AGP applies the MFN and national treatment principles in conjunction with requirements for transparency, and elimination of unnecessary obstacles to international trade. Appleton suggests that the answer to whether or not governments can use PPMs in making procurement decisions is up for debate as these rules have never been officially tested (Appleton 2001). He says that although AGP defines its scope very broadly, it also uses the definitions of standards and regulations described in the TBT Agreement. If the AGP does apply to NPR-PPMs the ability of governments to make procurement decisions based on NPR-PPMs would be greatly reduced

(Appleton 2001). He argues however that even if this is the case, the exceptions in AGP may be broad enough to justify such a measure for environmental reasons outlined in AGP Article XXIII (similar to GATT Article XX). He goes on to argue that if AGP Art. XXIII is interpreted along the same lines of GATT Art. XX chapeau (very likely) it is likely that requirements for cooperation obligations, due process obligations, and obligations of administrative fairness may nonetheless inhibit government procurement decisions based on NPR-PPMs.

Assuncao & Zhang also address the permissibility of government procurement decisions based on the environmental (green) characteristics of competing like products. They point out three scenarios of potential conflict between "green" procurement policies and AGP obligations. First, because procurement policies already differ greatly among nations, Assuncao & Zhang worry that "greening" procurement policies will lead to further asymmetries thereby making procurement policies less transparent and adding an unnecessary obstacle to international trade. Second, in order to maximize transparency and fairness of "greened" procurement policies, environmental characteristics must first be technically specified. Assuncao & Zhang argue that this could lead to differential treatment between domestic and foreign producers (i.e. product transportation-related specifications). Lastly, similar to Appleton's analysis, they point out that the acceptability of procurement decisions based on NPR-PPMs is debatable due to the quasi-WTO nature of the AGP. In contrast to Appleton's argument they point out that some analysts (Cameron & Buck 1998) argue that the AGP does not explicitly exclude use of technical specifications based on NPR-PPMs, and that such specifications are in fact "in line" with the AGP (Assuncao & Zhang 2002).

Lastly, Appleton brings up the issue of whether the AGP would apply to the procurement of emission credits. He says that it is unlikely because emissions credits would not be goods nor services and the goal of the AGP is to promote the competitive procure of national goods and services. It is important to note however that emission credits have not yet been classified by the WTO, and some authors suggest that they may be covered under the GATT as "commodities", or the GATS as financial instruments (Diringer 2002, Rosenweig et al 2002).

In sum, the debate over NPR-PPM related procurement decisions is rather open ended. However, due to the market power of government procurement practices this debate is an important one. Government procurement rules may play a key role in making the use of less energy intensive processes in production economically viable, and thereby in securing domestic compliance with Kyoto emission reduction requirements. Therefore, further analysis of this debate is necessary. In particular, as Appleton suggests, the role that the AGP Article XXIII may play in permitting procurement decisions based on NPR-PPMs is a crucial focus point. It is possible that through careful examination of these rules, strategic domestic implementation of procurement policies may ensure exemption even in the case of non-compliance.

III. Conclusions

As Brewer points out, the likelihood of conflict between these two regimes is equally contingent on political and economic circumstances as it is on legal technicalities (Brewer 2003). Although we can certainly rule out some possibilities, and identify some recurring trends, hard and fast generalizations cannot be made to describe under which conditions conflict can certainly be avoided between the WTO and *effective* policies related to domestic implementation of Kyoto Protocol requirements.²⁰ Therefore, in order to assure that conflict between these two regimes is averted, member nations may be forced to significantly water down their implementation strategies. For example, they may only apply voluntary labeling schemes, avoid use of energy efficiency regulations, refrain from using subsidies to support transitional industries, and avoid use of NPR-PPM related carbon taxes. These weakened measures may restrict the ability of Kyoto member nations to successfully meet their greenhouse gas reduction goals during the first commitment period, which may in turn challenge the legitimacy of the Kyoto Protocol as an effective tool to slow down the effects of global climate change.

Clearly conflict between international trade and climate change regimes would undermine the legitimacy and effectiveness of either regime. Therefore conflict avoidance should be of top priority to proponents of both regimes. Charnovitz suggests that both regimes would benefit from a focus on institutional linkages which foster mutual supportiveness between these two regimes (Charnovitz 2003). He points out that this has begun to occur in that the United Nations Framework Convention on Climate Change (UNFCCC) has been "granted observer status in the WTO Committee on Trade and Environment (CTE) and is being invited to its negotiating sessions" (Charnovitz 2003). This is undoubtedly a step in the right direction. However, it is also imperative that formal discussions searching for synergies between the two regimes be held on neutral ground where both sides have a voice not only in the negotiating process but also in setting the agenda of the discussions.

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Assuncao & Zhang suggest one methodology for creating such a negotiating space in the formation of a WTO/UNFCCC working group. This solution is better still, as presumably both groups would be able to participate in agenda setting and conflict resolution. In doing so this group could work to both identify conflicts before they arise, as well as harmonize policies and international standards to avoid such conflicts. However, what legal authority would such a group have in influencing the WTO dispute settlement body (DSB) if unforeseen conflict did arise? This is a core problem, as the DSB is currently not even bound by precedent based on their own past panel decisions. Is it politically feasible or realistic to assume that the DSB would be bound by the decisions of an inter-regime working group? As Murase suggests, in the case of conflict between these two regimes, the regime which is generally regarded as more effective and legitimate will be the one to prevail in the decision making process.

Building on the ideas stated above, as well as drawing from the World Environment Organization (WEO) literature (Biermann 2001, Esty 1994), perhaps a more effective alternative would involve the establishment of an international organization, made up of representatives of existing regimes, designed to deal with issues specific to the case if international regime overlap. This type of organization would be dedicated to both analyzing and maximizing synergies between trade and environmental regimes, as well as taking on the role of dispute resolution between regimes. Again, the feasibility of such a regime is questionable, however, not dismissible. The WTO has already voiced concerns about their role in ruling on environment related disputes, and concern about the potential for conflict between MEAs and the international trading order is no secret among the environmental community. This proposal is different from the existing proposals suggesting the establishment of a WEO, in that it advocates for synergy rather than "counterbalance." Admittedly, it does not address one of the primary critiques of the WEO which I share with Najam (Najam 2003): it assumes that the core problem is largely administrative, and does not address the social and normative structures which shape the evolution of our environmental problems in the first place (i.e. consumption patterns, and resource extractive industry control of national level environmental agenda setting). However, it does address the possibility that environmental and trade regimes may be in some ways constitutionally at odds and in need of an interlinked organization, supported by both regimes, to resolve disputes resulting from this overlap of commitments and objectives.

It appears that one way in which negotiators of MEAs are beginning to solve the problem of inter-regime conflict is in designing protocols in such a way as to put the burden of WTO compliance on individual states, i.e. through domestic implementation of requirements. Article 2 of the Kyoto Protocol does not give states specific guidelines about how to reach the protocol's stated goals of greenhouse gas reduction or sustainable development, but leaves this decision up to individual states. In doing this, the actual text of the Kyoto Protocol is relatively "WTO proof" in comparison to previous MEAs which contain specific trade- related environmental measures (TREMs) such as CITES. However, this approach is both weakening regime requirements in terms of goal attainment (Young 1994), as well as disharmonizing domestic implementation strategies. In doing so, this strategy is simply displacing risk of non-compliance onto individual states. This approach is counterproductive to both the strength of MEAs as well as to their stated environmental goals. If MEAs begin to weaken their requirements, it is plausible that more nations will ratify MEAs. However, if these agreements are so weak as to not fulfill any legitimate environmental objective, the legitimacy of the MEAs as governing institutions will be severely compromised. Furthermore, by displacing the WTO compliance burden onto member states, MEA negotiators are effectively removing the protective MEA framework, under which conflict is less likely to occur. This discussion highlights the need for further exploration into the role of institutional linkages which foster mutual supportiveness between regimes as suggested by Charnovitz (Charnovitz 2003), as well as further research into the emerging patterns of MEA regime design in light of the increasing restrictive pressures as exerted by over-lapping and conflicting regime commitments.

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¹ For an alternative classification of the issues see Brewer T. 2003. The Trade Regime and the Climate Change Regime: Institutional Evolution and Adaptation. *Climate Policy* 3: 329-41

² See Jinnah S. 2003. Emissions Trading Under the Kyoto Protocol: NAFTA and WTO Concerns. *Georgetown International Environmental Law Review* 15: 709 for a more complete discussion of domestic implementation of emissions trading under the Kyoto Protocol.

³ See Charnovitz 2003, Appleton 2001, and Brack et al. 2000

⁴ Article 2(a) of the Kyoto Protocol states in part: "Each Party included in Annex I, in achieving emission limitation and reduction commitments under Article 3, in order to promote sustainable development, shall: (a) Implement and/or further elaborate policies...such as:

(i) Enhancement of energy efficiency in relevant sectors of the national economy;...(iv) Promotion, research, development and increased use of renewable forms of energy, or carbon dioxide sequestration technologies and advanced and innovative environmentally sound technologies; (v)Progressive reduction or phasing out of market imperfections, fiscal incentives, tax and duty exemptions and subsidies in all greenhouse gas emitting sectors which run counter to the objective of the convention and apply market instruments; (vi) Encouragement of appropriate reforms in relevant sectors aimed at promoting policies and measures which limit or reduce emissions of greenhouse gases...;(vii) Measures to limit and/or reduce emissions of greenhouse gases...in the transportation sector..." "Specificity" is defined in SCM Article 2

⁶ Other examples of energy efficiency regulations that have been challenged under the WTO are the "Auto Taxes" cases in which the EU challenged UC CAFE standards and the "gas guzzler tax." The WTO struck down the CAFE standards in finding that they discriminated unfairly against foreign cars being sold on the US market. However the WTO found that the "gas guzzler tax" in accordance with GATT Article III because it was applied in a nondiscriminatory way to all cars regards of their country of origin. See Brack et al. 2000, p. 52 for a discussion of these cases.

⁷ Although Brack et al. suggest that the ISO 14000 series for environmental management may prove to be an appropriate forum for development of such standards (at 46).

See Assuncao & Zhang 2002, p. 10 for a discussion of why a carbon tax is economically and environmentally preferable to an energy tax

It is unclear if these competitiveness concerns are economically justified. See Brack et al. 2001 at 72.

¹⁰ In order to avoid conflict with the Most Favored Nation Principle, domestic implementation of carbon taxes must be applied identically on domestic and foreign products and must not unduly place the burden on imports. Many European countries have successfully demonstrated that carbon taxes can be implemented without raising WTO concerns. See Brack et al. 2000 Chapter 4¹¹ Assuming that the product was not subjected to a similar tax prior to export.

¹² GATT Working Party on Border Tax Adjustments 1970 para. 4.

¹³ In accordance with the 1970 GATT Working Group on Border Tax Adjustments Charnovitz refers to these taxes as "taxes occultes." The 1970 Working Group could not come to a decision as to whether taxes occultes were eligible for border tax adjustments.

¹⁴ The 1970 Working Party on Border Tax Adjustments considered this question but failed to reach a conclusion on the issue.

¹⁵ GATT Report Panel of the Panel – United States – Taxes on Petroleum and Certain Imported Substances

¹⁶ Much of the following discussion is taken from Brack et al. 2000 chapter 4, section 4.4

¹⁷ For a detailed legal analysis of these definitions See Brack et al. 2000 at 85-86.

¹⁸ Biermann et al. 2002 also provide an in depth analysis of this issue. They conclude, through extensive policy analysis that an export adjustment on carbon taxes could be permissible under the WTO if strategically implemented.

¹⁹ For a detailed explanation of how GATT panels have historically interpreted Article XX, see Jinnah 2003.

²⁰ Brewer provides a "triage" analysis of these issues, ranking many of the issues discussed in this paper as (1) problematic, (2) less problematic but warrant further attention, and (3) least problematic at this time. See Brewer T. 2004. The WTO and the Kyoto Protocol: Interaction Issues. Climate Policy 4

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