GREEN TRADE AGREEMENTS:
Comparison of Canada, US and WTO[1]

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Abstract: Environmental provisions have been incorporated into many trade agreements and are included in the Doha Round negotiations of the WTO. However, they remain limited, are controversial and their impacts on environmental improvement are, at best, mixed. This paper examines their content and implications for trade and the environment.

Introduction

Since the inclusion of environmental provisions in the North American Free Trade Agreement (NAFTA) and their recognition in the Uruguay Round Agreements of the General Agreement on Tariffs and Trade (GATT) they have been incorporated within a substantial number of regional and bilateral trade agreements (Colyer 2003a, 2003b, 2004, 2006; OECD 2007). [3][2] Canada, Mexico and the United States were the signatories of NAFTA, but their approaches to environmental provisions have varied in negotiating subsequent trade pacts. The US has included environmental provisions in all its agreements and is required to do so since passage of the Trade Promotion Act (TPA) of 2002. Canada has entered into fewer agreements than the US and has included environmental issues in some but not all agreements. Mexico has been active in negotiating trade agreements, but generally has not included environmental provisions in its agreements, although doing so in a few cases. In addition to including environmental provisions in the agreements, the US and Canada carry out environmental impact of analyses of their trade agreements; the US is required to do so under regulatory and legislative requirements (Clinton 1999; Shiner 2002; Audley 2004).

While the US and Canada have been leaders in promoting the inclusion of environmental issues in trade agreements, other countries and regional groups have started to include such provisions in some or all of their agreements (Colyer 2004, 2006; OECD 2007). Environmental concerns also became an issue in negotiations during the final stages of the Uruguay Round of the General Agreement on Tariffs and Trade (GATT) and, while not included as specific provisions they were recognized in the preamble and objectives, becoming an integral part of GATT and, thus, the World Trade Organization (WTO) which was established in 1995 with completion of the Uruguay Round (Esty 1994; Nordström and Vaughn 1999). An important aspect of this was the establishment of the Committee on Trade and Environment (CTE) within the WTO. Environmental issues are specifically included in the negotiations of the Doha Round of the WTO, whose Director General has indicated that the Doha negotiations could be considered as a green round (Lamy 2007).

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[2] The effects of trade on the environment are well known and the potential for harmful as well as beneficial effects of increased trade is a primary reason for incorporating environmental provisions in trade agreements. See, e.g., Copeland and Taylor (2003, 2004) for an analysis of how trade can affect the environment.

[3] The importance of the environment as a trade issue is recognized in the preamble to the Marrakesh Agreement that concluded the Uruguay Round of GATT negotiations (WTO 2008a).

It also should be noted that environmental-trade issues in the WTO are not limited to just a single part of the GATT/WTO agreements. Environmental aspects are, for example, present in Article XX, as well as the Sanitary-Phytosanitary (SPS) and Technical Barriers to Trade (TBT) agreements, the General Agreement on Trade in Services (GATS), and other parts of the documents. They also enter the trade debates on sustainable development, eco-labeling, genetically modified organisms (GMOs), and domestic subsidies for agriculture, natural resources and fishing, etc. (Cameron 2007).

This paper examines, compares and evaluates the environmental provisions included in trade agreements and the use of environmental impact analyses of trade agreements to determine their consequences for countries participating in the agreements. The focus is on the specific regional and bilateral agreements of the United States and Canada as well as the multilateral WTO negotiations, but other trade agreements are considered where appropriate.

NAFTA's Environmental Provisions

NAFTA negotiations between Canada, Mexico and the U.S. had been initiated under the George H. W. Bush administration in 1990, but had not been completed prior to the 1992 presidential campaign and candidate Clinton was critical of the process, especially with respect to a lack of both labor and environmental protections (Eglin 1999; Hufbauer et al. 2000). When the Clinton Administration undertook negotiations for completing and implementing NAFTA, the environment received a more prominent role and extensive provisions were included, both in the main text and in an extensive side agreement. These set up both a set of environmental objectives plus provisions and mechanisms for carrying out and enforcing the environmental provisions. Thus, NAFTA became the first major trade agreement to include environmental provisions. The major mechanisms for carrying them out include:

- Agreement not to induce investment by becoming pollution havens,
- Establishment of rules about the use of regulations to protect human, animal, plant and environmental heath which included a provision that each country was to develop and enforce its own environmental laws and regulations,
- Multilateral Environmental Agreements (MEAs) and GATT rules would take precedence in case of conflicts with NAFTA provisions,
- Institutional arrangements for implementing the provisions, including:
  - The North American Agreement on Environmental Cooperation Commission (NAAEC) with a Secretariat in Montreal to address and monitor environmental issues in the region,
  - The Commission on Environmental Cooperation (CEC) to carry out the environmental provisions of the agreement,
  - A Joint Public Advisory Committee (JPAC) to provide a mechanism for inputs by citizens and non-governmental organizations (NGOs),
  - Border Environment Cooperation Commission (BECC) to identify and help correct infrastructure problems related to water supply, wastewater treatment, and municipal solid waste needs on the U.S.-Mexico border, and
  - North American Development Bank to finance projects identified by the BECC.

The agreements also provided for technical and financial assistance, especially for Mexico which was less developed than the other two countries. An important innovation in NAFTA was the

provision that allowed citizens or groups to bring complaints to the CEC if they believed their country was failing to enforce its environmental laws and regulations. The CEC would investigate the complaints and determine if the complaint was justified and to take remedial action in cases where a country was failing to enforce its rules. [4]

Subsequent trade agreements with environmental provisions generally have included only a subset of those included in the NAFTA side agreement. Thus, not only was it the first but also one of the most extensive with respect to environmental provisions.

Key Environmental Provisions in Trade Agreements

The Organization for Economic Co-operation and Development (OECD) recently carried out a thorough analysis of regional trade agreements (RTAs) including bilateral agreements. They found nine types of key environmental provisions, although the individual RTAs vary considerably and most contain only some of the key elements (OECD 2007). The nine types of provisions listed in the publication include (p. 16): [5]

1) References to environment of sustainable development in the preamble,
2) Commitments to effectively enforce national environmental laws,
3) Commitments related to environmental standards (not lowering, enhancing or harmonizing standards),
4) Procedural guarantees and public submissions processes to ensure enforcement of domestic environmental laws,
5) Binding dispute settlement mechanisms with respect to environmental obligations,
6) Co-operation and capacity building mechanisms in the field of environment,
7) Language to reconcile commitments under RTA and regional or multilateral environmental agreements,
8) Environmental exceptions to trade disciplines, and
9) Mechanisms for public participation in implementation of the agreement.

The OECD report also notes that there is a wide variety in the types of provisions and coverage of the numerous trade agreements and in the approaches taken to environmental issues.

US Trade Agreements

Since NAFTA's implementation, the United States has entered into a number of regional and bilateral trade agreements and is in the process of negotiating additional agreements.[6] Increased

[4] Another important and controversial provision is Chapter 11 which allows corporations to sue for damages when new environmental rules and regulations cause losses (see, e.g., Bottari and Wallach 2005).

[5] The OECD classification is similar to the NAFTA provisions but includes others and may not be complete. It does not include, for example, the provision for encouraging corporate stewardship as in some US agreements. Others combine provisions which could be separated, e.g., procedural guarantees and public submissions in number 4.

[6] The US has bilateral agreements with Israel, Jordan, Chile, Singapore, Australia, Morocco, Bahrain, Peru, and Oman (the last two are being implemented) and two regional (NAFTA, CAFTA-DR) agreements as of February 2008. In addition, three bilateral agreements are pending approval by Congress (Colombia, Panama, and Republic of Korea) and others are being negotiated. The Free Trade Area of the Americans is also being negotiated but no progress has been made in recent years. The US participates in several other trade initiatives, cooperative efforts, investment agreements, and trade and investment framework agreements as well as the WTO (USTR 2008). The agreement with Israel was implemented in 1985 and has no environmental provisions.

emphasis has been placed on these after the failure of the WTO Cancun meetings and the continued slow pace of obtaining consensus on the new multilateral agreements. The U.S. is required to include environmental objectives and provisions in trade agreements under PL 107-210, the Trade Promotion Act (TPA), which reestablished fast-track authority under which Congress can only approve or disapprove a trade agreement, i.e., cannot change the negotiated provisions (Shiner 2002).[7] TPA provisions require, among other things, that countries signing trade agreements with the U.S. assure that their environmental laws are enforced (Audley 2004, p. 17). In addition, the agreements are to: strengthen the capacity of US trading partners to protect the environment; promote the sale of green products and services; reduce or eliminate government practices or policies that unduly threaten sustainable development; establish consultative mechanisms to strengthen the capacity of US trading partners to develop and implement environmental and human health standards; conduct environmental reviews of trade agreements; respect the Doha Declaration on Trade-related Aspects of Intellectual Property Rights clarifying a developing country's right to break patents during a public health crisis; and promote consideration of multilateral environmental agreements (MEAs) in negotiations on the relationship between MEAs and trade rules, especially as they are related to GATT Article XX.

All of the agreements have, generally in the preamble, a statement that an objective is to protect the environment and each contains a chapter or article with specific environmental provisions.[8] While all agreements address the environment, most are relatively weak compared with the NAFTA provisions. All have basic provisions that each country has 1) the right to establish its own levels of domestic environmental protection and environmental and priorities, 2) that each shall strive to improve those laws, 3) each is required to enforce its environmental laws while each party also retains the right to exercise discretion with respect to investigatory, prosecutorial, regulatory, and compliance matters, and 4) requires the participants recognize that is not appropriate to encourage trade or investment by weakening or reducing the protections afforded in domestic environmental laws. The environmental part of the agreement with Jordan is the simplest of all US trade agreements, consisting of an article—less than one page in length, rather than a chapter as in other agreements. It contains four paragraphs encompassing the four provisions listed above plus defining of environmental laws.

All other agreements have additional provisions such as those represented by the following environmental chapter subheadings in the Australia-US Free Trade Agreement which is fairly typical of those with countries other than those of the Americas:

Article 19.1: Levels of Protection
Article 19.2: Application and Enforcement of Environmental Laws
Article 19.3: Procedural Guarantees and Public Awareness
Article 19.4: Voluntary Mechanisms to Enhance Environmental Performance
Article 19.5: Institutional Arrangements and Public Participation
Article 19.6: Environmental Cooperation
Article 19.7: Environmental Consultations

[7] The fast track provisions of this act expired in 2007 and have not yet been extended.

[8] The environmental sections of trade agreements discussed in this and the following sections are from the trade agreement documents downloaded from either the Office of the US Trade Representative, the Canadian Department of Foreign Affairs and Trade, SICE, the website on trade agreements maintained by the Organization of American States (OAS) , or web sites of other governments and organizations.

Article 19.8: Relationship to Environmental Agreements
Article 19.9: Definitions

These provisions, thus, add encouragement of voluntary actions to improve the environment, encouragement of and mechanisms to permit public participation in environmental issues, promotion and development of methods for environmental cooperation, provide for consulting on environmental issues, and recognizes the relationships to international environmental and trade agreements to which both (all) parties are signatories. Some of the agreements have additional provisions—the Singapore and Chile agreements, for example, have a paragraph encouraging corporate stewardship of the environment.

The environmental provisions with other countries in the Americas provide for an environmental council to receive complaints from citizens and groups that environmental laws are not being enforced, investigate the allegations, release findings with respect to the situation, and in some case adjudicate remedies. These councils have functions similar to the CEC in the case of NAFTA, although the institutional arrangements are different, being less extensive and less well financed than with NAFTA. Agreements completed after the Democrats regained control of Congress in 2006 have tended to have more rigorous environmental provisions. The agreement with Peru, for example, was amended to incorporate additional environmental provisions, including one to reduce illegal trade in timber (Villarreal 2007; USTR 2007). Some environmental organizations still consider the provisions inadequate for enhancing the environment and promoting sustainable development (Blackwelder and Pope 2007).

Many environmentalists and others have been critical of the environmental provisions of US trade agreements. For example, in 2004 leaders of ten environmental groups sent a letter to Congress critical of the proposed environmental provisions of the Central American Free Trade Agreement (CAFTA, later to also include the Dominican Republic).[9] The Friends of the Earth (n.d.) in a fact sheet on CAFTA stated:

> Unfortunately, CAFTA's environmental rules are inadequate and would not ensure that environmental protection in Central America is improved in a meaningful way. The agreement does not clearly require any country to maintain and effectively enforce a set of basic environmental laws and regulations. CAFTA also does not include an enforceable set of standards for corporate responsibility on environmental issues. Further, there is not even parity between enforcement of the existing environmental provisions and CAFTA's commercial provisions.

Many environmental organizations are critical of trade agreements and especially those between industrialized nations, such as the US, and developing nations due to the unequal power of the parties, i.e., they see the larger nations as forcing undesirable conditions on the developing country (see, e.g., Oxfam 2007). The criticisms of environmental provisions stem, in part, from an unrealistic expectation of utilizing trade agreements to attain environmental improvements that have not been attainable through domestic legislation and/or multilateral environmental agreements and

[9] Center for International Law, Defenders of Wildlife, Earth Justice, Friends of the Earth, League of Conservation Voters, National Environmental Trust, Natural Resources Defense Council, National Wildlife Federation, Sierra Club, and U.S. PIRG (Magraw et al. 2007).

treaties, as well as the view that increased trade nearly always has undesirable consequences for the environment.

Canadian Bilateral and Regional Agreements

Canada has entered into relatively few trade agreements compared to either the US or Mexico. However, recently the country has increased its activities and currently has a number of negotiations in progress—two have been signed in 2008. Canada has bilateral agreements with Israel, Chile, Costa Rica and Peru as well as an agreement with the European Free Trade Area (EFTA); it signed the agreements with EFTA and Peru during 2008 the meetings in Davos, Switzerland (Foreign Affairs and International Trade Canada 2008; EFTA 2008, ICSTD 2008f). There are associated environmental side agreements with Chile, Costa Rica and Peru, but not with Israel or EFTA; the agreement with Israel has a short chapter (one paragraph) that allows the same exceptions to trade rules that Article XX of GATT permits with the environment specifically mentioned (the EFTA agreement has a similar provision).[10] The Canadian environmental side agreement to its free trade agreement with Chile is modeled after the NAFTA agreement, as stated specifically in the introduction to the agreement. A purpose was to enable Chile to join NAFTA, although that expectation was not realized. Thus, most of the provisions are similar to NAFTA. Therefore, the environmental side agreement with Chile is extensive, detailed and very similar to the NAFTA side agreement. The Costa Rican side agreement is much shorter and does not establish a commission for its implementation, but instead sets up biennial or more frequent meetings to "review progress on implementation..." (Article 7). The side agreement is less detailed than the one with Chile, although the basic provisions are similar to those of the Canada-Chile agreement and to those in the U.S. bilateral agreements with other countries in the Americas. The Canada-Peru FTA, completed in May 2008, has a short chapter (17) relating to the objectives of the separate environmental agreement. The latter has additional provisions promoting conservation and sustainable use of biological diversity and preservation of traditional knowledge. Thus, the NAFTA agreement has had a strong influence on the inclusion of environmental issues in trade agreements, at least with respect to many of those negotiated by the U.S. and Canada.

Article 5 of the Canada-Costa Rica Environmental Side Agreement requires that the parties assure "persons with a legally recognized interest under its laws" have access to "administrative, quasi-judicial, or judicial proceedings." The agreement designates, in Annex II, points of contact within the two governments for communications and for citizen inputs as permitted under Article 10 of the agreement. Citizens can make complaints about lack of enforcement of environmental laws and expect an investigation and response, but these are made to government agencies rather than an independent council—the Director of the Americas Branch, International Relations Directorate for Canada and the Office of the Vice Minister, Ministry of Environment and Energy for Costa Rica.

As in the United States, some environmentalists and others oppose Canada's free trade agreements as being harmful to the environment and/or argue that the environmental provisions when included are inadequate. One organization, for instance, made the following arguments after a meeting in Chile (Common Frontiers 1998):

[10] Article XX permits exceptions to free trade rules for the protection of plant, animal and human health and life. See Cosbey et al. (2004) for a discussion of exceptions in FTAs.

"Free" trade agreements have limited the power of the Canadian government to manage our natural resources,

Free Trade Agreements have limited our ability to establish environmental and health standards.

Free Trade Agreements have limited our access as citizens to decision makers (who are often further away).

Free Trade Agreements have increased the rights of corporations, giving them a bigger say.

Mexican Trade Agreements

Mexico has entered into several trade agreements since NAFTA (EFTA, EU, Japan, Nicaragua, Bolivia and Chile). However, most do not have environmental provisions.[11] The EU-Mexico FTA has a short article (Article 34) agreeing to cooperate of prevent environmental degradation, promote conservation, to "develop, promote and spread information and experience on environmental legislation," develop economic incentives, strengthen management, promote training and education, execute joint projects where appropriate and encourage social participation in environmental issues. The agreement with Japan also provides for "Cooperation in the Field of Environment" (Article 147). This is to include 1) exchange of information on policies, laws, regulations and technology, 2) promotion of capacity and institution building, 3) encouragement of trade of environmentally sound goods and services, encouraging investment in business alliances in environmental areas. The agreement with Nicaragua states, in its preamble, that the agreement is to promote the development and applications of environmental laws and regulations and a short article (14-14) concerns the protection of the environment especially with respect handling and disposal dangerous substances and waste products. However, there are no other direct environmental provisions contained in the agreement.

Requirements for Environmental Provisions

While the US is required to include the environmental provisions discussed above in its trade agreements, most countries do not have such mandates although including environmental provisions is becoming more common. New Zealand's cabinet developed a framework for integrating environmental issues into its trade agreements (NZ Ministry of Foreign Affairs and Trade 2001; OECD 2007). The framework states (p. 1) that it is the government's purpose "to harmonize its objectives for trade and the environment, with both serving the overarching objective of promoting sustainable development." New Zealand strives to maintain that the government's ability to regulate the environment and promote improvements is not diminished by trade agreements while assuring that environmental provisions are not used for protectionist purposes. However, the framework does not require including specific environmental objectives in trade agreements as mandated by the US TPA, although New Zealand has included provisions in some of its trade agreements.

The European Union does not require specific environmental provisions in its trade agreements but the provisions of its Sustainable Development Strategy (SDS) contain language that is the equivalent of a mandate (OECD 2007, p. 17). A 2002 addition that globalized its 2001 SDS gives as one of its priority objectives: "Provides incentives for environmentally and socially sustainable production and trade" (Commission of the European Communities 2002, p. 7). Its 2006 review of the SDS strengthens this by stating:

[11] Mexico had felt pressured with respect to the NAFTA environmental side agreement and, thus, has not looked favorably on including such issues in trade agreements. This is a common position of many developing countries which tend to view these as trade barriers favoring the industrialized nations (Deere and Esty 2002)

> The Commission and Member States will increase efforts to make globalisation work for sustainable development by stepping up efforts to see that international trade and investment are used as a tool to achieve genuine global sustainable development. In this context, the EU should be working together with its trading partners to improve environmental and social standards and should use the full potential of trade or cooperation agreements at regional or bilateral level to this end (Council of the European Union 2006, p. 21).

Thus, while not requiring that environmental provisions be included in trade agreements, the SDS strategy clearly indicates that its trade related activities including its agreements should enhance and improve environmental standards and EU FTAs generally contain such provisions and some recent FTAs have extensive environmental provisions. [2]1

The OECD report on trade agreements and environment also indicates that one way the US helps insure that the environmental objectives of the 2002 TPA are followed is through a review of trade agreements by the Trade and Environmental Policy Advisory Committee (TEPAC). [3]1 However, TEPAC states in reports evaluating the provisions of trade agreements that the 30 days allotted under TPA for carrying out these evaluations are not adequate for a thorough evaluation (TEPAC 2004, p. 2). They state in the review of the US-Australian agreement: "A majority also maintains its position, expressed in last year's reports concerning the Chile and Singapore FTAs, that the 30 day, classified period of review of the FTA, is insufficient." In addition, TEPAC, as well as individual members of the committee, raised a number of questions with respect to the environmental provisions in the Australian agreement. For example, on page 14, it was stated that enforcement mechanisms were lacking.

Environmental Reviews

Canada and the US both conduct environmental reviews (impact analyses) of their trade agreements, Canada under a 2001 framework and the US under guidelines published following the issuing of Executive Order 13141 which mandated the reviews (Canada Department of Foreign Affairs and Trade 2001; USTR 2000). An examination of both Canadian and US environmental reviews (ERs) shows that they have nearly always reached the same general conclusion, that the trade agreement will result in a relatively small economic impact and, consequently, will have only a very minor or no environmental impact within Canada or the US.[14] The Final US-Chile Environmental Review, for example, states (p. 4) "…the pattern and magnitude of the trade flows attributable to the FTA will not have any significant environmental impacts in the United States." A preliminary report for a proposed Canadian-Andean Community pact states (p. 13) "Thus, the environmental effects of the Canadian-Andean FTA resulting from investment will be minimal to

[12] The EU-Algeria, EU-Mexico and EU-Chile FTAs of the early 2000s, for example, have only brief articles on environmental cooperation in chapters dealing with cooperation, but some recent agreements have more extensive provisions. The EU-Cariforum (Caribbean) and interim EU-Pacific States FTAs have environmental chapters including the cooperation article, although a draft agreement with some East African States does not (EU FTAs were accessed through the bilaterals.org website).

[13] The committee, established under TPA, is one of several advisory committees first established under the Trade Act of 1974 (OECD 2007, p. 19).

[14] The environmental reviews are available from the websites of the US Trade Representative (USTR) and the Canadian Department of Foreign Affairs and Trade.

non-existent." While these conclusions appear true for each individual pact, the cumulative effect could be very different.[15] In addition to environmental effects due to increased trade and production, the US reviews examined the effects on use environmental technologies, concluding that they would be positive; the effects on the capabilities to enforce US environmental laws and regulations, concluding that they would have no effect on national, state or local governments abilities to enforce their environmental laws; the effects of the investment chapter on the environment, again concluding little or no effects; and finally the effects of environmental cooperation provisions in the agreements with a conclusion that these would have positive environmental effects. Some of the reviews did note that their might be transboundery effects such increased air pollution or effects on migratory birds, etc.

The US requirement for environmental reviews was to determine the domestic effects of the FTAs and the early reviews did not examine the effects in the partner country (ies). However, more recent reviews have examined potential effects in the partner countries and sometimes note that the FTA might have greater economic and, hence, environmental impacts for the partner(s). These reviews tend to note that the overall impacts on the partners might be positive due to greater use of improved technologies that are more environmentally friendly, due to increased knowledge and emphasis on the environment that comes with publicity about the FTA, due to environmental cooperation and consultancies, and due to higher incomes resulting from increased trade and the positive effects of higher incomes on the demand environmental improvements. The interim report for the US-Panama FTA, for example, states (p. 2): "The US-Panama FTA may have positive effects in Panama by reinforcing efforts to effectively enforce environmental laws, accelerating economic growth and development and disseminating environmentally beneficial technologies."

Gallagher, Ackerman and Ney (2002) carried out an economic analysis of environmental reviews in North America. They found that the reviews had improved and become more sophisticated over time, often using utilizing rigorous quantitative and qualitative techniques in the analysis of potential effects. They found (p. 1) that; "In addition, ERs have brought unprecedented levels of public participation into the trade policy-making process." They, also found that the process is still "in its infancy" with several limitations including methodology, inadequate attention to marginal effects, and overdependence on quantitative techniques while many environmental problems are qualitative. Thus, they concluded that the scope of the reviews should be broadened, methodologies used expanded, number of environmental variables increased, and levels of inter-governmental and public participation enhanced.

WTO Environmental Provisions/Negotiations

In 2001, WTO members launched a new round (the Doha Round) of negotiations at the November Ministerial in Doha, Qatar which mandated the inclusion of environmental issues (WTO 2001, 2008b). Environmental issues had become an important aspect of the GATT/WTO process near the end of the Uruguay round of negotiations when the GATT Director General called a meeting of the GATT Committee on Environmental Measures and International Trade (EMIT) to help mitigate the effects of the tuna-dolphin decision that threatened completion of the

[15] This possible cumulative effect was pointed out by a colleague, Peter Schaeffer.

negotiations.[16,17] In addition, environmental issues were relevant earlier in negotiations for the GATT Technical Barriers to Trade (TBT) and Sanitary-Phytosanitary (SPS) agreements.

The first explicit negotiations on environmental provisions for the GATT/WTO agreements were mandated in the Doha Ministerial Declaration which includes environmental concerns in a number of areas. These were divided into to main parts, the regular work of the CTE and negotiations under special sessions (CTESS). The later negotiations are outlined in paragraphs 31i, ii, and iii, which consist of a much narrower and different set of issues than typical in bilateral and regional trade agreement negotiations (WTO 2001). Paragraph 31(i) concerns negotiations on the relationships between WTO rules and specific trade obligations (STOs) in multilateral environmental agreements (MEAs), 31(ii) involves developing procedures for information exchanges with the MEAs and observer status for MEAs and others at CTE meetings, and 31(iii) is a directive to eliminate or reduce tariff and non-tariff barriers to trade in environmental goods and services.[18] The CTE has responsibility for the negotiations, although specific aspects are under the purview of other negotiating areas—for example the actual tariff levels are under Non-Agricultural Market Access (NAMA) and environmental services under the General Agreement on Trade in Services (GATS). As with several other issues in the Doha Round, the environmental negotiations have been controversial with substantial disagreements between the various members and groups and, hence, a failure to reach a consensus.

Under Paragraph 31(i), determining how to handle relationships between WTO rules and STOs of the environmental agreements, it is necessary to determine which MEAs to include as well as how to handle possible conflicts and other issues. The WTO (2007) indicates that at least 20 of the many MEAs have trade implications.[19] However, there are disputes about what STOs are and, hence, which MEAs are relevant (ICSTD 2004). The Doha environmental mandate had limited the scope for the negotiations, which hampered those wishing to see stronger environmental provisions (Palmer and Tarasofsky 2007). During 2005-2006, the CTE concentrated mainly on paragraph 31(iii) dealing with environmental goods. $^{0}_{2}$

Information exchanges and observer status for MEAs (paragraph 31(ii) has also been somewhat contentious. Provisions for information exchanges already existed (WTO 2007) and this part was left largely unchanged, but with proposals to extend and improve the process. Observer

[16] EMIT had been established in 1971 as a response to the strong environmental movement of that era; its purpose was to prevent environmental protections from interfering with free trade—however it did not meet until 1991 to study trade and environmental linkages and provide input for the Rio Earth Summit (Cameron 2007). The tuna-dolphin GATT case was brought by Mexico against the US for prohibiting the importation of tuna not caught using methods that protected dolphins (Esty 1994; Eglin 1999). See Mann and Porter (2003) for an examination of trade and environmental law issues.

[17] Cameron (2007), however, maintains that environmental concerns had always been part of the GATT/WTO agenda, starting with the 1947 agreement where Article XX allowed exceptions to rules barring trade restrictions where these were to protect plant, animal and human life and health.

[18] The issue of environmental goods generally does not arise in bilateral and regional agreements since under these most goods are granted free access to both (all) markets.

[19] The numbers vary among different documents. The WTO's Matrix on Trade Measures lists 14 MEAs with trade related measures (WTO 2005). An UNCTAD paper indicates that there are 38 (Hoffman 2003).

[20] Environmental services are included in the Doha mandate, but these are being handled in the services negotiations. As in the case of goods, relatively little progress has been made due, in part, to the critical nature of such publics services as water and sewage, the reluctance of developing countries to open these services, and the fact that LDCs do not have environmental services that they can export. Services are not discussed in this paper (see Claro et al. 2007 or Kirkpatrick 2006 for a good discussion of services issues.

status has been limited due, in part, to the failure of the general Trade Negotiations Committee to address the issue, but also due to reluctance to allow broad participation by some members.[21] The CTESS decided to allow observers at its special sessions on an *ad hoc* basis to the UNEP and six MEAS although others had requested to participate–the Organization for Economic Cooperation and Development (OECD) also has attended some sessions (ICSTD 2003a, 2005). [2]2

For environmental goods, paragraph 31(iii), the purpose is to enhance the environment by freeing trade in relevant goods and services beyond the provisions for other types of products. In 2002, the CTE decided to shift negotiations on tariff levels for goods and services to the Negotiating Group on Non-agricultural Market Access (NAMA) and Council on Trade in Services, but retained the issue of defining environmental goods which has occupied much of the CTE's negotiating efforts (ICSTD 2005). Some members, e.g., the EU, want to include green consumer goods while many others, especially many developing countries objected because they feared this might involve processing and production methods which would be disadvantageous to them.[23] Another issue was whether to approach the issue by defining environmental goods or to develop lists of environmental goods as in the OECD (see Howse and van Bork 2006 for a discussion of the options). Thus, lists from OCED and APEC with various modifications have been suggested by a number of members. [4]2 The developed country members and some others opted for a list of goods but cannot agree on what to include in the list, although one list proposed by 'friends of the environment (mostly industrialized countries), has 153 products (Jha 2008).[25] Many developing countries are suspicious of this approach. India, for example, wants to limit the free import of environmental goods to those being used for specific environmental projects, since many good could be used for other, non-environmental purposes, but this approach has been criticized by developed country members (Claro et al. 2007). The developing countries are concerned that most of the environmental goods are produced in the industrialized nations and see little opportunities to increase their exports under the proposed liberalization scenarios.

Under the regular work of the CTE negotiations, environmental aspects of trade are included in paragraphs 32 and 51 as well as fishing subsidies. Fishing subsidies are handled in the rules negotiations where an objective is to reduce or eliminate over-fishing which poses a threat to wild fish stocks (ICSTD 2006). These negotiations, like many in the Doha Round, have been controversial with a failure, to date, to reach a consensus (ICSTD 2008d). Paragraphs 32(i), 32(ii) and 32(iii) are concerned with environmental measures and market access, relationships of trade aspects of intellectual property rights (TRIPS), the Convention on Biological Diversity (CBD), and

[21] Most MEAs allow observer status for the WTO and other relevant organizations.

[22] A substantial number of organizations have been granter observer status for CTE meetings but the list includes only a couple of the major MEAs, the CBD and CITES (WTO 2008x).

[23] UNCTAD and others have worked with LDCs to both help them understand the issues and to provide resources to enhance their negotiating capabilities for helping resolve these issues (see, e.g., Puri 2007, Hoffmann 2003). In addition, Hamway (2005) maintains that developing countries have considerable export potential for environmental goods, especially for environmentally preferable goods (those whose use, manufacture or disposal have favorable environmental impacts), but also for industrial goods used to provide environmental services.

[24] A number of countries have proposed lists or other approaches, such as combining the list and project approach. For a thorough discussion of this voluminous issue see Claro et al. (2007).

[25] A note by the Secretariat (2005) has some 480 products from the various lists submitted by Canada, EU, Japan, Korea, New Zealand, Qatar, Switzerland, Chinese Taipei, and U.S. (WTO 2005).

environmental labeling (ICSTD 2005; WTO 2008c).[26] Paragraph 51 mandates that the CTE and Committee on Trade and Development (CTD) jointly identify and debate environmental aspects for sustainable development objectives. While initial discussions were held on 32(i), there has been little progress on these issues. The TRIPS council was to handle 32(iii) issues, but has concentrated on public health and geographic indicators negotiations (ICSTD 2003b). Negotiations on environmental labeling have not progressed appreciably. A workshop was held on paragraph 52 issues (including trade and development, agriculture, fisheries, subsidies, environmental goods and service liberalization, intellectual property rights, and capacity building for development), but little progress has been made in actual negotiations.

Negotiations were resumed early in 2007 after a hiatus in 2006 and the initial CTE meeting again focused on information exchanges and observer status based on a U.S. proposal (ICSTD 2007a). The U.S. proposed annual meetings of the CTE and MEAs for exchanging information, permanent observer status for the MEA Secretariats that had been granted *ad hoc* status, and assistance for developing countries to improve their trade and environment activities. Switzerland commented that the list should also include the UNEP and the EU suggested that the Secretariats of all MEAs be included. A brief discussion of free trade in environmental goods reiterated positions with DCs favoring a list of goods and LDCs expressing concerns about this approach. Much of the recent effort has been devoted to trying to reach agreement on what to include in the environmental goods, with an inability to reach a consensus due, in part, to the fact that many goods on the proposed lists have dual or multiple uses, i.e., can also be used for non-environmental purposes. There also have been new proposals such as Brazil's request to include biofuels, Peru's for organic foods and Kuwait's for including natural gas as environmental goods (ICSTD 2007b). Part of the reluctance to make commitments to the environmental issues is due to the failure to reach agreements in agriculture and NAMA, where major disagreements have continued to prevent a consensus being reached. In February 2008 and again in May, the Agricultural and NAMA Committee Chairs produced draft documents as bases for further negotiations (ICSTD 2008a, 2008e). However, these draft modalities have not produced a consensus with fundamental differences still existing with respect to tariff cuts, agricultural subsidies, special safeguards for developing countries and other issues (ICSTD 2008b, 2008e). Within this context, the environmental negotiations appear to have relatively low priority within the Doha proceedings (ICSTD 2008c).

Effects of Environmental Provisions

Most the research on trade and the environment has focused on the effects of freer trade on the environment, with little attention given to the effects of environmental provisions in FTAs on mitigating the negative effects of increased trade.[27] NAFTA, however, has been in effect since January 1, 1994 and has been subject to a large amount of environmental research, some of which

[26] Negotiations on these issues are not analyzed in detail due to space limitations. Some, however, are very important, especially for LDCs. For example, many developing countries view market access limits due to environmental, health and other requirements as an important barrier to their export potentials (see WTO (2006) for a summary of UNCTAD and OECD efforts in this area).

[27] Studies of the effects of trade on the environment have shown that they are mixed, both positive and negative with the net effects depending on particular circumstances and production effects (see e.g., Copeland and Taylor 2003, 2004; Gallagher 2004, CEC 2002a).

evaluated the effects of its environmental provisions. Gallagher (2004), while concentrating on environmental effects, also evaluated the provisions and institutions of the NAFTA agreements. He concluded environmental degradation has continued under NAFTA, but that the NACEC has programs that can improve the environment, saying (p. 74): "Although NACEC is not equipped to reverse overall trends, it has made a number of significant strides in some areas." Gaines (2007, p. 171) examined the effects of NAFTA's Chapter 11 and concluded that "environmentalists have little ground for alarm, and much reason to be encouraged, about how Chapter 11 has influenced environmental protection." Another aspect of the NAFTA provisions is public involvement through submission of complaints about the failure of their governments to enforce environmental laws and regulations, as well as through participation in symposiums and other information activities. As of early March 2008, some 64 complaints had been registered with the CEC (CEC 2008). The CEC investigates to determine the validity of the complaints and files reports with its findings, but generally cannot impose penalties or force governments to enforce their laws (under Article 22 it can impose fines of up to $20 million); its power lies in making the facts public so that citizens can bring pressure to improve enforcement (Barba 2000, Gallagher 2004). In addition, under NAFTA's Enforcement and Compliance Program an environmental working group (EWG) is tasked with promoting cooperation in enforcement of environmental laws and regulations (CEC 2002b). The environmental provisions in trade agreements, thus, tend to focus attention on environmental issues, get the public more involved in protecting the environment, encourage cooperation, and may provide technical assistance for addressing environmental problems.

Concluding Comments

With the successful conclusions of NAFTA and the GATT Uruguay Round of multilateral negotiations (and establishment of the WTO), environmental concerns and issues became an integral part of trade liberalization negotiations and agreements, although most bilateral and regional agreements do not have extensive environmental provisions. The environmental provisions included in US, Canadian and other bilateral and regional FTAs have important implications for the environment in the participating nations. While they have been criticized as inadequate or ineffective, their inclusion in the trade pacts have raised awareness of trade related environmental issues and problems, induced greater public participation in addressing environmental problems, focused attention on enforcement of laws and regulations, helped to spread technologies favorable to environmental improvements, and contributed to environmental dialogue and cooperation, including the provision of technical and sometimes financial assistance for LDC participants.

Most environmental issues with international aspects, however, are still handled through the large number of multilateral and regional environmental agreements, treaties and conventions, although these do not address all international environmental issues. Many MEAs have implications and/or effects on international trade–some are specifically designed to affect trade as, for example, the CITES Convention which prohibits or regulates trade in endangered species. While none of the many trade disputes that have been brought to GATT/WTO dispute panels have been based on MEA measures, there is a potential for conflicts to develop, especially since not all WTO members are signatories of all MEAs. While the EU wanted, under some circumstances, to make MEA measures applicable to all WTO members, the Doha mandate specifically excluded applications to non-participants in any particular MEA (WTO 2001, paragraph 31, WTO 2002). The Doha round of environmental negotiations, if successful, will help clarify the relationships of the WTO and MEAs

and can contribute significantly to trade in environmental goods and services, although the WTO Director General's claim that the Doha round is a green round is probably an exaggeration. However, bilateral and regional FTAs as well as the WTO will continue to play important roles in environmental governance. In addition, the environmental reviews of trade agreements will, despite findings that most FTAs do not significantly affect the environment, contribute to understanding the environmental consequences of trade liberalization and the multitude of changes induced by liberalization, i.e., they force negotiators to consider the impacts of trade on the environment. These reviews have become more comprehensive and help guide the final forms of the environmental provision included in Canadian and US trade agreements.

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