



**AgEcon** SEARCH  
RESEARCH IN AGRICULTURAL & APPLIED ECONOMICS

*The World's Largest Open Access Agricultural & Applied Economics Digital Library*

**This document is discoverable and free to researchers across the globe due to the work of AgEcon Search.**

**Help ensure our sustainability.**

Give to AgEcon Search

AgEcon Search  
<http://ageconsearch.umn.edu>  
[aesearch@umn.edu](mailto:aesearch@umn.edu)

*Papers downloaded from **AgEcon Search** may be used for non-commercial purposes and personal study only. No other use, including posting to another Internet site, is permitted without permission from the copyright owner (not AgEcon Search), or as allowed under the provisions of Fair Use, U.S. Copyright Act, Title 17 U.S.C.*

## **ENVIRONMENTAL PROVISIONS IN FREE TRADE AGREEMENTS**

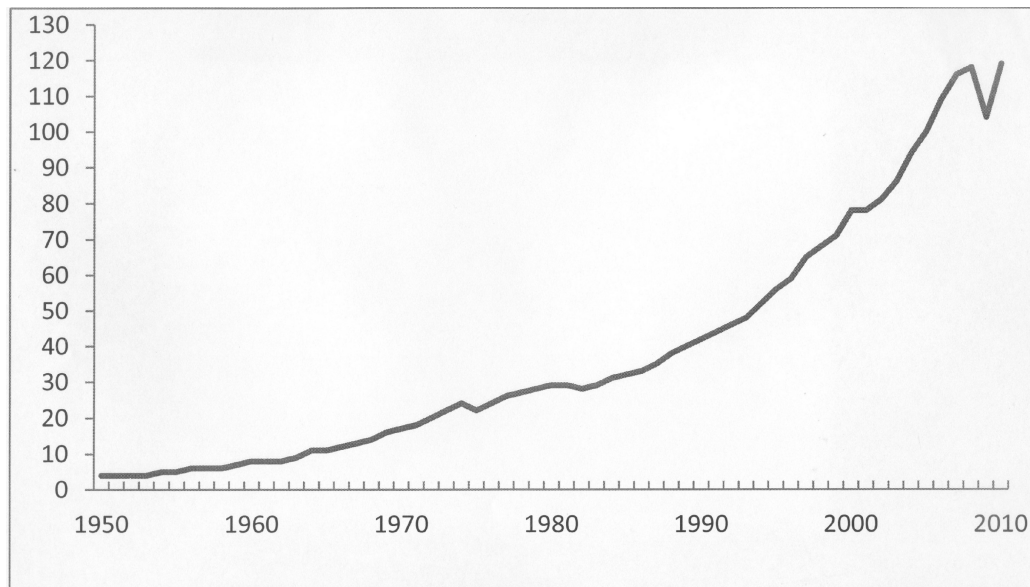
Dale Colyer  
West Virginia University

International trade in commodities has grown almost continuously since the end of World War II, largely under the influence of the General Agreements on Tariffs and Trade. GATT started in 1947 with 23 members, has undergone several rounds of negotiations aimed at reducing barriers to trade, has expanded to encompass most of the world (154 countries in 2012, including Russia) and became the World Trade Organization (WTO) in 1994 (Colyer 2011). Since 2001, it has been involved in seemingly stalled negotiations for new agreement (Doha Round). In addition to the GATT/WTO, there have been numerous bilateral and regional trade agreements, although with one exception (European Commission—now European Union) most of the earlier agreements had relatively small impacts. However, the numbers of free trade agreements, both bilateral and plurilateral, have increased greatly during the last two decades and many of these new agreements have had provisions designed to protect and/or enhance the environment.

### **Trends in Trade and Trade Agreements**

World trade in commodities has expanded almost continuously since the end of World War II (see figure 1, source WTO 2011), with the exception of 2009 when trade dropped sharply due to the world wide economic crisis. However, there was a large rebound in trade in 2010 with a 14.5 percent increase in volume (WTO 2011b); they continued to rise in 2011 (OECD 2012). The value of total world exports in 2010 was \$14.8 trillion, a 235 percent increase since 2000 (UN 2011). Slightly over half of these (53.7 percent) was from countries the UN classifies as

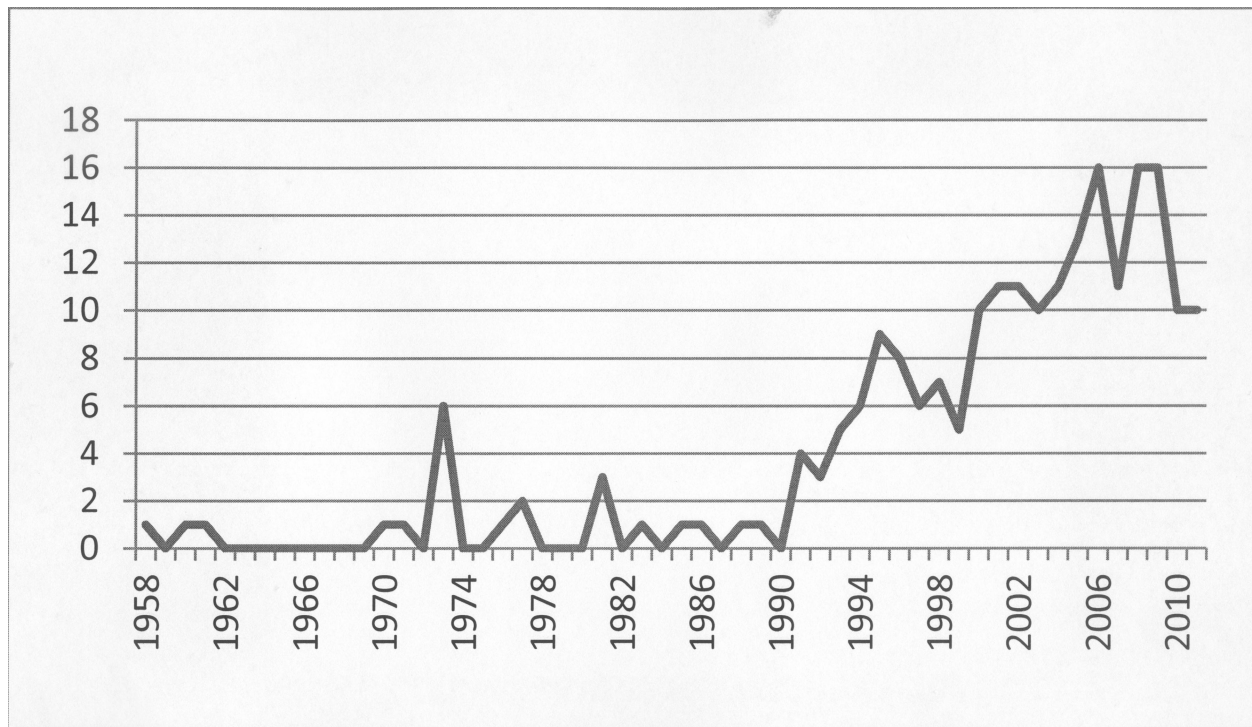
developed. China accounted for slightly more than 10 percent of the total while US exports were 8.5 percent and the European Union about 3.4 percent.



**Figure 1. Index of World Commodity Exports (2002=100)**

Free trade agreements were relatively rare during the first three decades of GATT. Regional trade agreements were permitted under GATT as a way to facilitate trade between neighboring and nearby countries and were to be approved by the organization. Because of this process, several that were negotiated never entered into force and those that did generally were not successful trade promotion actions. A notable exception was the European Commission (EC) formed in 1958 with six members and which evolved into the European Union (EU), currently with 27 members. However, beginning in the 1990s with NAFTA and other agreements the use of FTAs began to increase and their numbers have continued to grow (Colyer 2011, WTO 2012) (Figure 2). Factors affecting this growth include the slowness and failure of

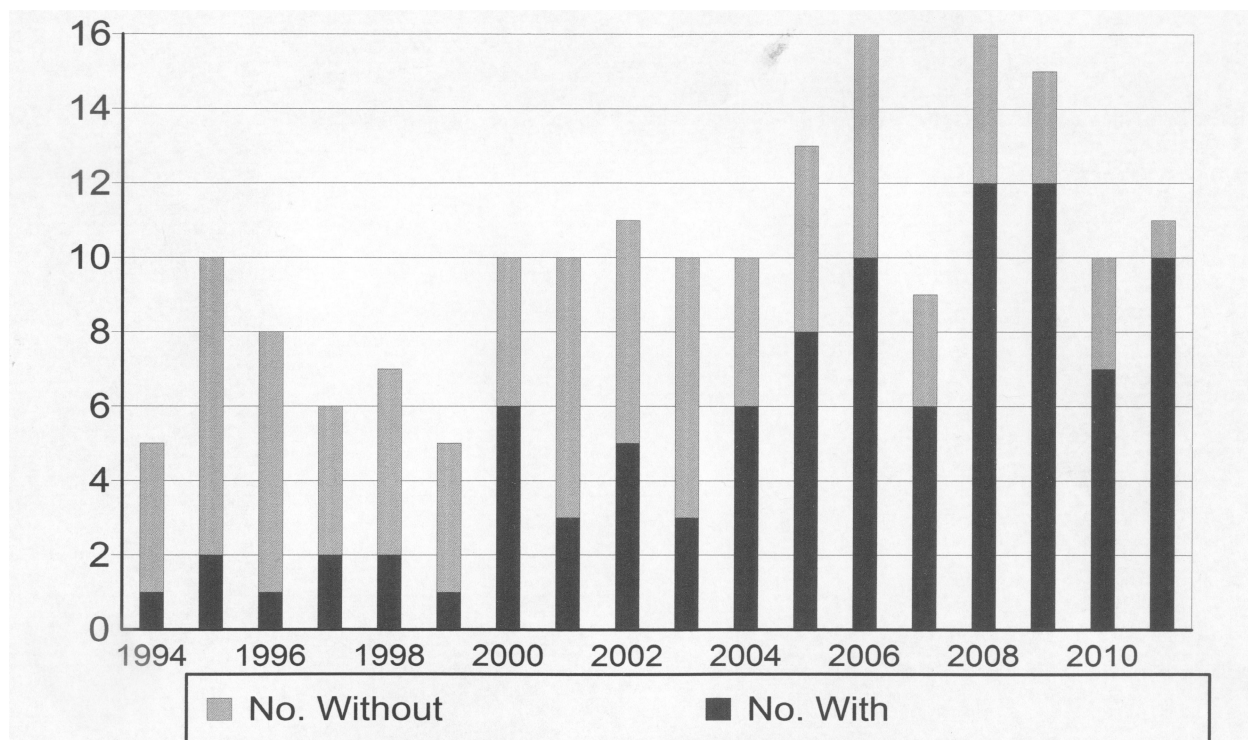
the Doha Round to reach a new set of agreements, the failure of GATT negotiations to achieve the significant tariff reductions that many members wanted (since GATT works by consensus as the organization grew it became more difficult to reach a meaningful consensus), and as the US



**Figure 2. Number of FTAs Entering into Force by Year, 1957-2011**

and EU became active in negotiating FTAs other nations were encouraged to take advantage of FTAs to increase their trade.

The FTAs negotiated in the 1990s and beyond have differed from previous agreements in that an increasing number have provisions dealing with environmental issues (see Figure 3). The North American Free Trade Agreement was the first FTA with major environmental provisions, although the GATT agreements contained Article XX, which allows exceptions to provisions that prohibit trade restricting measures. NAFTA contained provisions within its main agreement and in a connected environmental side agreement, provided for an institution to oversee



**Figure 3. Free Trade Agreements with and without Environmental Provisions**

implementation of the agreement (Commission on Environmental Cooperation) with a budget financed equally by the three members, and established a US - Mexico border commission and the North American Development to finance border activities. The US is now required by the Trade Promotion Act of 2002 to include a specified set of environmental provisions in its FTAs and Canada, the EU, New Zealand, Japan and other nations have policies promoting the consideration of the environment in their FTAs.

### **Environmental Provisions**

Many FTAs have an article identical or similar to GATT's Article XX and/or mention a goal of protecting the environment in the preamble to the agreement. The FTAs listed as having environmental provisions shown in Figure 3 have environmental measures that go beyond those two either in the main agreement or a linked environmental side agreement or both (there also are

environmental cooperation agreements not related to an FTA). These can be classified in various ways, but can be divided into broad categories including measures to protect and/or enhance the environment, cooperation on environmental matters including sector specific provisions, and citizen participation in trade related environmental activities. Most FTAs have some type of institutional arrangements for implementing the provisions either as a separate activity or as part of the general implementation procedures.

**Provisions to protect or enhance the environment** include requiring the parties to enforce their environmental laws and regulations, not to weaken their environmental regimes to attract investment, to improve their laws and their enforcement, maintain environmental standards, and promote corporate environmental stewardship. In addition, many recognize that each country has the right to develop and enforce their own laws and regulations, i.e., an agreement to not impose standards while encouraging improvements. Also, many recognize and agree to support and comply with multilateral Environmental Agreements (MEA) to which the parties are members. A related measure, which arose out of problems with Chapter 11 of NAFTA, is a declaration that new environmental laws/regulations cannot (sometimes “except in rare circumstances”) be considered to be a taking of property, i.e., corporations or others cannot sue for losses incurred as a result of new laws which might affect their profitability.

**Environmental cooperation** generally exists with FTAs between more and less developed countries, but may exist in those among the more developed as, for example, in the case of Australia-US FTA. The agreements on cooperation vary from simple pledges to cooperate on a list of areas to extensive plans and procedures including institutional arrangements for carrying out the activities—these often are in side agreements linked to the FTA.

Cooperation generally consists of two types, enhancing capabilities for dealing with environmental issues and projects to improve the environment. Cooperation for capacity building often consists of providing resources and technical assistance to improve the capability of the partner country or countries to monitor their environment, enforce their environmental laws, improve the laws and regulations and their enforcement, and develop facilities such as laboratories for, e.g., testing for air and water quality, and monitoring stations. These efforts frequently include enhancing the legal capacity for enforcement of environmental laws and regulations. Specific projects can include infrastructure such roads, irrigation, ports, water supplies, sanitation, air quality facilities, etc. They might also include parks and other recreational facilities, forestry improvement, management and protection, agriculture, energy, tourism, fisheries and other specific sector projects. While much of the financing comes from the more developed partner, the agreements tend to require contributions from both (all) parties to the agreement.

**Citizen participation** in FTA procedures takes two forms: 1) participation in planning and carrying out environmental activities, including obtaining information on needs, problems and to discuss proposed activities; and 2) citizen initiated complaints that a government is not enforcing its environmental laws. An example of the first is the use of hearings and other public meetings to help select projects to be financed along the US-Mexico boarder—such meetings also might be educational. NAFTA also has a Joint Public Advisory Committee (JPAC) to advise the Commission on Environmental Cooperation (CEC). Similar provisions are in the Canada-Chile and US-CAFTA-DR agreements, where any citizen (or organization) in a country can lodge a complaint that the country is not enforcing its environmental laws with respect to a specific area,

project or related activity; the Canada-Peru environmental agreement accompanying their FTA provides that any citizen of either country can submit a written complaint that their government is not complying with the environmental provisions of the FTA and the side agreement. The appropriate authority (e.g., CEC for NAFTA) investigates, and if the complaint is found to have merit, investigates and issues a report. There is no mechanism for enforcement of the findings, although governments may and sometimes do respond to correct deficiencies or make changes in their procedures. In addition, where environmental impact analyses are made (Canada, EU and US), citizen participation is encouraged both in developing the analyses and at throughout the process until completion. These can involve attending meetings on the impact analysis and presenting written responses to the features of the impact analysis.

**Institutional** arrangements for implementing the environmental provisions consist of simple approaches including none in the case of some FTAs with few provisions to having contact persons designated by each party. However, those with more extensive and complex environmental content and environmental side agreements may have elaborate arrangements as is the case for NAFTA. These consist of Commission for Environmental Cooperation (CEC), headed by a council consisting of the highest environmental authority in each of the countries, Canada, Mexico and the United States. The environmental provisions are implemented by a secretariat, located in Montreal, with an Executive director appointed by the Council and a permanent staff. A Joint Public Advisory Committee (JPAC) advises the Council and secretariat. The CEC is funded by annual grants of \$10 million from each country.

The DR-Central America-US FTA has similar arrangements as NAFTA but is financed mostly by USAID and has a much smaller budget. Other FTAs may have a council or



commission composed of high levels representatives to plan and oversee activities with an implementing unit (committee or commission) to implement the FTA's environmental provisions; others may have a group and in some cases a single individual in each country charged with implementation. Often there are annual meetings to review activities, evaluate progress, and plan future programs. Implementation may be carried out by the same authorities in overall charge of the FTA, but are often separate groups. Financing the implementation is generally a joint endeavor although less developed countries may receive assistance from the more developed member(s) of the FTA. FTAs with more extensive cooperation provisions tend to have more elaborate institutional arrangements.

### **Effectiveness of Environmental Provisions**

The impacts of an FTA's environmental provisions are a function of the followup activities and resources assigned by the participating members. For FTAs with only a few general provisions designed assure that environmental laws will be enforced and not weakened to attract investment, but there may no direct followup except in some monitoring to assure compliance. Others, however, do require followup activities. These can be divided into three parts, the general provisions addressing environment laws, the cooperative efforts under the FTA or an environmental side agreement, and citizen involvement activities.

### **General Provisions**

The general provisions consist of measures to maintain, improve and enforce the parties' environmental laws and regulations with assurances that they are not weakened to attract investment. While some FTAs have enforcement mechanisms (trade sanctions), they are seldom utilized. Among the many FTAs, NAFTA has probably been analyzed more than any other, by

both the CEC and several independent individuals and groups (Colyer 2011). While it was found that Mexico had improved its laws and institutions, enforcement remained a problem (Carpentier 2006; Mendosa-Cantú, Ramírez-Romero and Pica-Granados 2012). The latter (p. 1347) say “In conclusion, the Mexican government has made important efforts to improve its policies to reduce water pollution.”

The U.S. Government Accounting Office (GAO) evaluated four U.S. FTAs (Chile, Jordan, Morocco and Singapore) with respect to the effects of these provisions (GAO 2009). They found (p. 5): “The selected partners have made several improvements to environmental laws since their FTAs were signed.” While the changes may not have been entirely due to the FTAs since some were already revising their laws but the FTAs “brought attention to environmental protection” and “heightened urgency to taking action.” Another action was the creation in Jordan of a 400 person environmental law enforcement agency. However, problems remained in enforcement capabilities and activities. A direct influence of an FTA was the passage by Peru of a forestry protection law (USTR 2011d). This was in line with provisions of the FTA which was amended from the original to include a forestry annex to address illegal logging and other forestry issues.

### **Cooperation<sup>1</sup>**

Cooperative efforts on environmental matters have become an important part of many FTAs, especially for those between developed and developing economies. NAFTA initiated cooperative efforts with the North American Agreement on Environmental Cooperation (NAAEC), the extensive side agreement to NAFTA. Its implementing agency, the Commission

---

<sup>1</sup> References for this and the subsequent section are given in the appendix tables.

on Environmental Cooperation (CEC) is funded by a \$9 million budget, \$3 million from each of the three member countries. The CEC through its secretariat, located in Montreal, monitors the environment, provides information and studies on the environment, funds environmental projects, administers the citizen complaint process and other tasks required for the pact's implementation. In addition, a border commission for the U.S.-Mexico border area works to resolve environmental problems on both sides of the border. The North American Development Bank (NADB) was established to fund approved projects. Although many FTAs have environmental provisions, none have the same infrastructure and resources as NAFTA.

All subsequent U.S. FTAs have cooperative environmental provisions (the FTA with Israel does not, but it was signed in the 1980s). Each has an environmental council (or a similar entity) of both (all) parties which meet to develop and plan activities and review progress. Several U.S. agencies may be involved in the implementation as well as corresponding agencies in the partner countries. Often private agencies, generally NGOs, may be part of some projects. Among the U.S. agencies are EPA, USAID, USDA, Forest Service, Department of Justice, and State Department, through its Bureau of Oceans and International Environmental and Scientific Affairs (although others might be involved including embassies in the partner countries). The EPA is generally the lead agency and carries out a large share of the cooperative activities—as do the environmental agencies of other nations involved. One of the more common cooperative efforts is to increase the capacity for environmental monitoring and enforcement through capacity training and facilities for environmental activities. The capacity training involves environmental personnel including enforcement and technical personnel in environmental agencies as well as in the judicial system for pursuing violators. The construction or equipping of environmental

monitoring and testing facilities has also been an important cooperative effort. Selected U.S. activities for non-NAFTA FTAs are listed in Appendix A.

Canada, the EU, Japan and New Zealand also have environmental cooperation in many of their trade agreements or associated side agreements. The Canada-Chile FTA was negotiated shortly after NAFTA and has similar provisions. The “first report” on environmental cooperation activities listed 26 activities under four themes through 2001, and the Canada -Chile website had a 2007 work plan, no additional activities were reported. There also are plans for implementing the Canada-Peru agreement. The EU-CARIFORUM States agreement provides for environmental cooperation as part of its broader cooperative functions. However, much of the EU’s efforts to date has been devoted to economic development activities for enhancing the Caribbean participants ability to increase their exports and related activities, but in a sustainable manner. In addition, the EU has ‘twinning’ activities where individual member states contribute to achieving the environmental goals of the FTA through their international development agencies; an example is the German development agency, which contributed \$2.2 million to a multiparty renewable energy program. A listing of additional cooperative efforts by the EU is given in Appendix B.

The Japanese development agency has participated in cooperative activities with a number of its FTA partners, although not all may have been a result of the FTA as there are similar activities with other countries for which there are no FTAs. These have included watershed management with Chile, joint research on ozone with Mexico, and wildfire management with Indonesia; some of this is under its three R program—reduce, reuse and recycle.

New Zealand’s Ministry of the Environment implements cooperative programs under environmental side agreements to its FTAs. One is with China, which included a workshop in

Beijing to develop and present their approaches to managing land contaminated with persistent organic pollutants (POP) with the objective of developing better approaches to the problem.

Among those with other partner countries are Thailand, Chile, Malaysia and Hong Kong. See Appendix C for further examples of cooperation between other countries, i.e., other than the EU or U.S.

### **Citizen Participation**

Citizen participation takes two general forms, 1) participation in planning and implementing environmental programs plus educational activities, and 2) programs to allow and investigate citizens' complaints that their governments are not enforcing their environmental laws. Public participation in conducting the environmental programs includes attending meetings and providing input (including written) for developing and carrying out cooperative efforts or other provisions of the FTAs and/or side agreements. Examples include JPAC for the CEC, where regular meetings are held to develop advice for the Council; the meetings are open so that there is an opportunity for input from more than the committee members. Planning for projects along the U.S.-Mexico border by the BECC involve public meetings to obtain information about problems and inputs from the public to help determine the particular projects to be funded. The U.S. encourages public participation in its other FTAs, as do Canada, the EU and several other countries.

Citizen complaints were an innovation with NAFTA with the NAAEC and, except for the Canada-Chile FTA, are used only in some of the other U.S. FTAs, including CAFTA-DR and Peru; with respect to the latter the OAS has been asked to handle the complaints. For NAFTA a total 74 complaints had been filed through January 2012 (Canada 30, Mexico 34, U.S. 10),

although some involve multiple filings on the same problem. While CEC has no enforcement powers, the complaints frequently call attention to problems and may result in remedial actions. The CAFTA-DR FTA has been in force only a few years and seven complaints have been filed. One of the first was that the DR was not enforcing an act to protect the hawksbill turtle and that objects made from their shells were being sold in tourist shops. The DR took immediate action to stop the practice. For Canada and Chile, four complaints against Chile were filed in the first two years, but after that the only other was in 2008 (complaints about Canada are handled by the CEC). In many of the complaints it was found that governments were not failing to enforce their laws, but others did find for the complainants.

### **Conclusions**

The numbers of free trade agreements, both bilateral and regional, have increased significantly during the last two decades (1994-2011). Those with environmental provisions, first used in NAFTA, also have increased greatly with a majority of recent FTAs having provisions in addition to a GATT Title XX type, which allows exceptions to trade prohibitions for various purposes, including some related to the environment. The environmental provisions consist of three types in addition to institutional measures for their implementation and mechanisms for dispute settlement. These are to 1) protect and improve the environment through maintaining, enhancing and enforcing environmental laws and regulations, 2) cooperate on environmental activities and projects including improving and enforcing the laws, and 3) involve the public in environmental activities related to trade and the environment.

A GAO evaluation has shown that there have been improvements in the environmental laws, regulations and institutions of four partner countries (Chile, Jordan, Morocco, and

Singapore). While enforcement remains a problem in some countries, cooperation on enhancing the capacities and improving environmental monitoring and testing facilities of developing countries is contributing to enforcement capabilities. In another case, Peru has improved its forestry laws under the U.S.-Peru FTA.

Cooperative activities have also included those to improve the environment as well as conducting studies as preparation for developing projects to improve the environment or to mitigate damages that may occur from increased trade. Many recent FTAs encourage public participation in activities related to the environment, including planning for projects, participating in implementation, attending educational seminars and workshops, as well as, for some FTAs, providing a forum for citizens to complain if they believe their government is not enforcing its laws or complying with the environmental provisions of the FTA.

There is no doubt that there are many activities related to the environmental provisions of FTAs and that they have resulted in better environmental laws and their enforcement, although the latter are often weak. There also are large number of cooperative actions associated with many FTAs, but it is not certain what, if any, the net effect is since the environmental agencies implementing the cooperation also conduct similar activities in countries where there is no FTA. Except in the case of the CEC which has a separate dedicated budget from the three member parties, the cooperative activities come from the budgets of the implementing agencies which may be no larger than they would be without the FTA provisions, although their existence and requirements are probably a factor in the agency budget requests and allocations. In addition, some less developed partner countries contribute to funding cooperative activities, in cash or in kind, probably results in greater expenditure on the environment.

## References

- Berg, Candra (2012) "Protecting Natural Resources Impacted by Tourism in Chile." U.S. Forest Service Office of Communication, <http://blogs.usda.gov/2012/01/05/protecting-natural-resources-impacted-by-tourism-in-chile/>, January 5.
- Caricom Secretariat (2012) "The Caribbean Renewable Energy Development Programme (CREDP)." [www.caricom.org/jsp/projects/credp.jsp?menu=projects](http://www.caricom.org/jsp/projects/credp.jsp?menu=projects), accessed February 27, 2012.
- Colyer, Dale (2011) *Green Trade Agreements*. Houndmills Basingstoke, UK: Palgrave Macmillan
- Economic Commission for Latin America and the Caribbean (ECLAC) (2008) "Review of CARIFORUM-EU EPA in Development Cooperation and WTO Compatibility." [www.eclac.org/publicaciones/xml/5/34435/L.177.pdf](http://www.eclac.org/publicaciones/xml/5/34435/L.177.pdf), October, accessed March 3, 2012.
- Environment Canada (2009) "First Canada-Peru Committee on the Environment Meeting." Lima, Peru, November 24-25, [www.ec.gc.ca](http://www.ec.gc.ca), accessed Feb 23, 2012.
- Environment Canada (2010) "Canada-Chile Agreement on Environmental Cooperation (CCAEC): First Review." [www.ec.gc.ca](http://www.ec.gc.ca), accessed February 22, 2012.
- Environment Canada (2012a) "Submissions Registry." <http://www.ec.gc.ca/can-chil>, accessed February 22, 2012.
- Environment Canada (2012b) "Agreement on the Environment between Canada and the Republic of Peru" <http://www.ec.gc.ca/caraib-carib/default.asp?lang=En&n=2396DF2F-1>, Accessed Feb 22, 2012.
- Environment Canada (2009) "First Canada-Peru Committee on the Environment Meeting." Lima, Peru, November 24-25, <http://www.ec.gc.ca/caraib-carib/default.asp?lang=En&n=2396DF2F->, accessed March 7, 2012.
- Environment Canada (2012c) "First Canada-Peru Committee on the Environment Meeting, November 24-25, 2009 - Lima, Peru." <http://www.ec.gc.ca/caraib-carib/default.asp?lang=En&n=7F710D18->, accessed Feb 22.
- Environmental Protection Agency (EPA) (2012bd) "International Programs; Past Activities." <http://www.epa.gov/international/regions/Mideast/mepast.html>, accessed February 22.
- Environmental Protection Agency. (2012a) "EPA Programs in Chile." <http://www.epa.gov/international/regions/sa/chile.html>, accessed February 22.



Environmental Protection Agency (EPA) (2012b) “EPA Programs in Singapore.” <http://www.epa.gov/international/regions/Asia/singapore.html>, accessed February 22.

Environmental Protection Agency (EPA) (2012c) International Programs: Jordan.” <http://www.epa.gov/international/regions/Mideast/Jordan.html>, accessed February 22.

Environmental Protection Agency (EPA) (2012d) “International Programs; Past Activities.” <http://www.epa.gov/international/regions/Mideast/mepast.html>, accessed February 22.

Environmental Protection Agency (EPA) (2012e) “Capacity-Building Programs Under CAFTA-DR.” <http://www.epa.gov/international/regions/sa/caftadr.html>, accessed February 22.

Environmental Protection Agency (EPA) (2012f) “International Programs: Morocco.” <http://www.epa.gov/international/regions/Mideast/morocco.html>, accessed February 22.

Environmental Protection Agency (EPA) (2012g) “International Programs: Jordan.” <http://www.epa.gov/international/regions/Mideast/Jordan.html>, accessed February 22.

Environmental Protection Agency (EPA) (2012h) “Jordan-US EPA Environmental Cooperation.” [http://en.openei.org/wiki/Jordan-US\\_EPA\\_Environmental\\_Cooperation](http://en.openei.org/wiki/Jordan-US_EPA_Environmental_Cooperation), accessed, Feb 22, 2012.

Environmental Protection Agency (2012i) “Capacity-Building Programs Under CAFTA-DR.” <http://www.epa.gov/international/regions/lac/caftadr.html#activities>, accessed March 10, 2012.

European Commission (2012a) “Development and Cooperation: Algeria.” [http://ec.europa.eu/europeaid/where/neighbourhood/country-cooperation/algeria/algeria\\_en.htm](http://ec.europa.eu/europeaid/where/neighbourhood/country-cooperation/algeria/algeria_en.htm), accessed March 6.

European Commission (2012b) “Development and Cooperation: Chile.” [http://ec.europa.eu/europeaid/where/latin-america/country-cooperation/chile/chile\\_en.htm](http://ec.europa.eu/europeaid/where/latin-america/country-cooperation/chile/chile_en.htm), accessed March 7, 2012.

European Commission (2012c) “Co-operation Programmes 2007-2013 (Egypt).” [http://ec.europa.eu/europeaid/where/neighbourhood/country-cooperation/egypt/egypt\\_en.htm](http://ec.europa.eu/europeaid/where/neighbourhood/country-cooperation/egypt/egypt_en.htm), accessed March 7, 2012.

European Commission (2012d) “Overview EU-Mexico Cooperation.” [http://eeas.europa.eu/delegations/mexico/index\\_en.htm](http://eeas.europa.eu/delegations/mexico/index_en.htm), accessed March 7, 2012.

European Commission (2012e) “Development and Cooperation: South Africa.” [http://ec.europa.eu/europeaid/where/acp/country-cooperation/south-africa/south-africa\\_en.htm](http://ec.europa.eu/europeaid/where/acp/country-cooperation/south-africa/south-africa_en.htm), accessed March 7, 2012.

European Commission (2012f) “Development and Cooperation: Morocco.” [http://ec.europa.eu/europeaid/where/neighbourhood/country-cooperation/morocco/morocco\\_en.htm](http://ec.europa.eu/europeaid/where/neighbourhood/country-cooperation/morocco/morocco_en.htm), accessed March

7, 2012.

European Commission (2012g) “Development and Cooperation: Syria.” [http://ec.europa.eu/europeaid/where/neighbourhood/country-cooperation/syria/syria\\_en.htm](http://ec.europa.eu/europeaid/where/neighbourhood/country-cooperation/syria/syria_en.htm), accessed March 7, 2012.

European Union (2012) “Scientific equipment for soil quality analysis thanks to €2 million from EU.” May 5, [http://eeas.europa.eu/delegations/albania/press\\_corner/all\\_news/news/2012/20120305\\_en.htm](http://eeas.europa.eu/delegations/albania/press_corner/all_news/news/2012/20120305_en.htm), accessed March 6, 2012.

International Institute for Sustainable Development (IISD) (2010) “US, Australia Discuss Environmental Cooperation.” [climate-1.iisd.org/news/us-australia-discuss-environmental-cooperation](http://climate-1.iisd.org/news/us-australia-discuss-environmental-cooperation), November 7, accessed February 12, 2012.

Japan Bank for International Cooperation (JBIC) (2010) “MOU with Mexican Government to Strengthen Dialogue for Promoting Business Cooperation.” <http://www.jbic.go.jp/en/about/press/2010/0223-01/index.html>, accessed March 8, 2012.

Levin College of Law (2012) “A Citizen’s Guide to the DR-CAFTA Environmental Submission Process.” University of Florida. <http://www.law.ufl.edu/conservation/costarica/spotlight/dr-cafta.shtml>, accessed March 2, 2012.

NZ Ministry for the Environment (2011) “Environmental cooperation with China.” [www.mfe.govt.nz/laws/trade/china/index.html](http://www.mfe.govt.nz/laws/trade/china/index.html), accessed March 3, 2012.

NZ Ministry for the Environment (2012) “International Trade and Environment.” <http://www.mfe.govt.nz/laws/trade/trade.html>, accessed March 8, 2012.

OECD (2012), *Monthly Statistics of International Trade*, Vol. 2012/1, OECD Publishing.

Secretariat for Environmental Matters, CAFTA-DR (2012) “Registro Público de Comunicaciones.” <http://www.saa-sem.org/>, accessed March 2, 2012.

Slocum, Rebecca (2011) “Promoting Trade and a Better Environment: CAFTA-DR Environmental Cooperation.” February 21 [http://blogs.state.gov/index.php/site/entry/cafta\\_dr\\_environmental\\_cooperation](http://blogs.state.gov/index.php/site/entry/cafta_dr_environmental_cooperation), accessed March 6, 2012.

World Trade Organization (2011a). *International Trade Statistics 2010*. Geneva.

World Trade Organization (2011b). “World Trade 2010, Prospects for 2011.” WTO Press Release, April 7.

United Nations (2011). *International Trade Statistics Yearbook 2010*. New York.

United Nations (2009) “Caribbean Hub sub-component - Capacity Building related to Multilateral Environmental Agreements (MEA) in African, Caribbean and Pacific (ACP) Countries.” [www.caricom.org/.../capacity\\_building\\_mea\\_project\\_document.pdf](http://www.caricom.org/.../capacity_building_mea_project_document.pdf), accessed March 4, 2012.

U.S. Department of State (2009) “United States-Peru Environmental Cooperation 2011-2014 Work Program,” [www.state.gov/documents/organization/169165.pdf](http://www.state.gov/documents/organization/169165.pdf), accessed March 2, 2012.

U.S. Department of State (2010) “Communique of the U.S. - Morocco: Working Group on Environmental Cooperation.” Rabat, Morocco, February 9, <http://www.state.gov/e/oes/rls/other/2010/138420.htm>, accessed February 22, 2012.

U. S. Trade Representative (2011a) “Joint Communiqué of the Meetings of the United States-Peru Environmental Affairs Council, Environmental Cooperation Commission and Sub-Committee on Forest Sector Governance.” <http://www.ustr.gov/about-us/press-office/press-releases/2011/april/joint-communique-meetings-united-states-peru-enviro>, Accessed March 5, 2012.

U. S. Trade Representative (2011b) “Summary of the Meeting: U.S. - Chile Free Trade Commission.” Santiago, Chile, [http://www.ustr.gov/webfm\\_send/3026](http://www.ustr.gov/webfm_send/3026), accessed March 5, 2012.

U. S. Trade Representative (2011c) “Joint Communiqué of the Meeting of the Sub-Committee on Forest Sector Governance of the United States – Peru Trade Promotion Agreement.: Lima, Peru <http://www.ustr.gov/about-us/press-office/press-releases/2011/july/joint-communique-meeting-sub-committee-forest-sector>, accessed March 5, 2012.

U. S. Trade Representative (2011d) “Statement by Ambassador Ron Kirk on the Passage of Peru's Forestry and Wildlife Law.” <http://www.ustr.gov/about-us/press-office/press-releases/2011/June/>, accessed March 13, 2012.

Vietnam Net Bridge (2012) “VN, Japan localities foster waste cooperation.” <http://english.vietnamnet.vn/en/environment/18956/vn--japan-localities-foster-waste-cooperation.html>, accessed March 8, 2012.

# Appendix A: Environmental Cooperative Activities for U.S. FTAs

FTA	Activities
Australia	Fulbright scholarships in renewable energy Peaceful use of outer space for remote sensing Climate change research Meteorology, navigation, clean energy, biotechnology, etc.
Bahrain	none indicated although included in the FTA
CAFTA-DR	EPA Technical Capacity Assistance for: Harmonization of Environmental Regulations Policies and Procedures (Wastewater) Environmental Law Enforcement Environmental Management Systems Environmental Impact Assessment (EIA) Hazardous Substances and Sound Management of Chemicals Strategic Approach to International Chemical Management (SAICM) Pollutant Release and Transfer Registry (PRTR) Urban Air Quality Management Land Use/Land Cover Mapping Green Customs Workshop on air quality monitoring Review of guidelines on Environmental Impact Assessment Air quality: an air quality monitoring audit in Guatemala City air quality monitoring; air quality management training; air quality forecasting; technical exchange; public access to air quality information Wastewater Model Regulation: development of a regional model for wastewater regulation training for wastewater labs on ISO 17025 Water Quality Standards
Chile	Environmental Governance Judicial training and procedures for enforcement Training of environmental personnel Technical assistance on environmental enforcement Mining: capacity building in the Ministry of Mining Torres del Paine National Park improvements Environmental education Public Participation

Jordan	<p>Enforcement training</p> <p>Industrial inspection planning</p> <p>Study tours to the U.S.</p> <p>Russeifah landfill remediation and improvement</p> <p>EPA Technical assistance to Ministry of the Environment and Royal Society for Conservation of Nature (an NGO)</p>
Morocco	<p>Environmental improvements in the textile industry</p> <p>– waste water discharges, manual for permits and inspections, training programs with (one result was a reduction in waste water, pollution and energy use)</p> <p>– address overgrazing and rangeland management (FS)</p>
Oman	<p>fisheries, turtles and predatory fish species</p> <p>Ecotourism</p>
Peru	<p>Institutions and policy strengthening</p> <p>Community and local market opportunities</p> <p>Improved environments and performance</p> <p>Enhanced public participation (all related to forestry)</p>
Singapore	<p>Improving air quality</p> <p>Reducing exposure to toxic wastes</p>

Sources: Berg 2011; EPAa,b,c,d,e,f,g,i; IISD 2010; Lewin College of Law 2012; Slocum 2011; US DOS 2009, 2010; USTR 2011a,b,c

## Appendix B. European Union Environmental Cooperation Activities

FTA	Cooperative Activities
CARIFORUM	Capacity building elates to Multilateral Environmental Agreements Technical Assistance Facility
Algeria	Sustainable development Environment and climate change in Algeria
Cameroon	Forestry Governance Sustainable management of natural resources Water su;;ies and sanitation
Chile	Forestry Environment and naturalresources
Jordan	Sustain ability of the growth process
Mexico	Sustainable economy and competitiveness Sustainable development of arid lands Forestry development and biodiversity
Morocco	Energy and environment Environment included in twining projects
South Africa	Water and sanitation Environmental component in developmetn projects
Syria	Renewable energy

Sources: Caricom Secretariat 2012, ECLAC 2008; EC 2012a,b,c,d,e,g; EU 2012; UN 2009

### Appendix C. Environmental Cooperation under Selected FTAs

Canada-Chile	Migratory bird study Capacity building for enforcement for protected species Management of pulp and paper effluents Chemicals management
Canada-Peru	Restoration of degraded ecosystems. Systemizing environment information Integrated chemicals management
Japan-Malaysia	Biomass energy research Increasing efficiency in energy use Standards conformity for energy
Japan-Vietnam	Managing solid wastes Chemical pollution Environmental center
Japan-Mexico	National Center for Environmental Research and Training Air pollution
New Zealand-Singapore & Thailand	collaborative vehicle emissions and transport management study
New Zealand-Thailand	Water allocation study visit by Thai Officials to New Zealand.
New Zealand-Chile	Study tour for Chilean officials on developing geothermal resources for
New Zealand-China	Workshop on contaminated land and persistent organic pollutants Water management science Water quality in rural areas Non-point water pollution

Sources: Environment Canada 2009a,b, 2010, 2012a,b,c; JBIC2010; NZ Ministry for Environment 2011, 2012; Viet Nam Bridge 2012