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# International Trade and the Environment

Timothy Whitehouse

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**INTERNATIONAL TRADE AND THE  
ENVIRONMENT**  
**AN ADDRESS AT THE INTERNATIONAL  
LAW STUDENTS ASSOCIATION  
CONFERENCE AT PACE LAW SCHOOL**  
**OCTOBER 27-29, 2005**

**Timothy Whitehouse†**

What have been the environmental consequences of the North American Free Trade Agreement? In this presentation I will examine some of the work the Commission for Environmental Cooperation has done on examining the relationship between trade and environment in North America?work which provides some general lessons about how trade affects the environment, and how economic growth can either help or hurt the environment.<sup>1</sup>

The (CEC) is an international organization created by Canada, Mexico and the United States under the North American Agreement on Environmental Cooperation (NAAEC), which is often referred to as the environmental side agreement to the North American Free Trade Agreement (NAFTA).<sup>2</sup> The ecological and economic importance of North America is significant. The countries of North America cover nearly fifteen percent of the planet's land mass<sup>3</sup> and have a combined population of

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† Head of the Law and Policy Program at the Commission for Environmental Cooperation in Montreal, Canada. This paper is an edited transcript of a speech made at the International Law Students Association (ILSA) Fall Conference, *Global Interdependence and International Commercial Law*, held at Pace Law School, October 27-29 2005.

<sup>1</sup> See generally Commission for Environmental Cooperation: Our Programs and Projects, [http://www.cec.org/programs\\_projects/index.cfm?varlan=english](http://www.cec.org/programs_projects/index.cfm?varlan=english) (last visited Apr. 2, 2006).

<sup>2</sup> Commission for Environmental Cooperation: Who We Are, [http://www.cec.org/who\\_we\\_are/index.cfm?varlan=english](http://www.cec.org/who_we_are/index.cfm?varlan=english) (last visited Mar. 31, 2006).

<sup>3</sup> See Worldatlas, <http://worldatlas.com/geoquiz/thelist.htm> (last visited Mar. 31, 2006).

some 440 million people.<sup>4</sup> These countries currently trade \$12 trillion worth of goods and services<sup>5</sup> and have a combined gross domestic product (GDP) of more than US \$12 trillion<sup>6</sup>, or 34% of the world's total GDP.<sup>7</sup>

NAFTA is largely responsible for the growth in trade and investment between Canada, Mexico and the United States since 1994.<sup>8</sup> Trade in North America has more than doubled since 1994.<sup>9</sup>

What, however, have been the environmental consequences of NAFTA? In 1994 when NAFTA was launched by the United States, Canada and Mexico, there was tremendous concern, particularly in the United States, that NAFTA would lead to environmental degradation.<sup>10</sup>

One reason for this concern was the environmental pressures of increased flows in traded goods. The worry was that increased production, transportation, energy use and resource exploitation could overburden existing environmental protections.<sup>11</sup> Also, some felt that by bringing Mexico into a free trade agreement with the United States and Canada, industries from the United States and Canada would move to Mexico—a poorer, developing country—because of the absence of strong environmental laws and Mexico's weak enforcement regime.<sup>12</sup> Some felt this would lead to a "race to the bottom," in which Mexico would have a strong incentive not to enforce environ-

<sup>4</sup> See Biocrawler, [http://www.biocrawler.com/encyclopedia/North\\_America](http://www.biocrawler.com/encyclopedia/North_America) (last visited Mar. 31, 2006).

<sup>5</sup> See OFFICE OF THE U.S. TRADE REPRESENTATIVE, NAFTA: A DECADE OF SUCCESS, July 1, 2004 [hereinafter DECADE OF SUCCESS], available at [http://www.ustr.gov/Document\\_Library/Fact\\_Sheets/2004/NAFTA\\_A\\_Decade\\_of\\_Success.html](http://www.ustr.gov/Document_Library/Fact_Sheets/2004/NAFTA_A_Decade_of_Success.html).

<sup>6</sup> DECADE OF SUCCESS, *supra* note 5.

<sup>7</sup> *Id.*

<sup>8</sup> *See id.*

<sup>9</sup> See OFFICE OF THE U.S. TRADE REPRESENTATIVE, TRADE FACTS: NAFTA: A STRONG RECORD OF SUCCESS, Mar. 22, 2006 [hereinafter STRONG RECORD], available at [http://www.ustr.gov/assets/Document\\_Library/Fact\\_Sheets/2006/asset\\_up\\_load\\_file242\\_9156.pdf](http://www.ustr.gov/assets/Document_Library/Fact_Sheets/2006/asset_up_load_file242_9156.pdf).

<sup>10</sup> See Paulette L. Stenzel, *Can NAFTA's Environmental Provisions Promote Sustainable Development?*, 59 ALB. L. REV. 423, 423 (1995).

<sup>11</sup> Francisco S. Nogales, *The NAFTA Environmental Framework, Chapter 11 Investment Provisions, and the Environment*, 8 ANN. SURV. INT'L & COMP. L. 97, 104 (2002).

<sup>12</sup> See Farah Khakee, Comment, *The North American Free Trade Agreement: The Need to Protect Transboundary Water Sources*, 16 FORDHAM INT'L L.J. 848, 848 (1993).

mental laws in order to gain a competitive advantage, thus preventing the United States and Canada from enforcing their environmental laws in order to remain competitive.<sup>13</sup>

These concerns echoed similar concerns expressed by the labor community.<sup>14</sup> The labor community was concerned that because Mexico had much lower wages, U.S. and Canadian industries would be at a disadvantage to Mexican industries and would have strong incentives to cut their labor costs or move to Mexico.<sup>15</sup>

The CEC was born from these political pressures.<sup>16</sup> These pressures were felt mostly in the United States. In order to ensure NAFTA's passage, the Clinton Administration had to make sure that NAFTA had both environmental and labor components.<sup>17</sup> As a result, with regards to the environment, the countries set up what was a unique organization. The CEC has an independent Secretariat in Montreal and is independent from the actual NAFTA trade Secretariats, which are located within each of the respective governments.<sup>18</sup> The CEC mission is to address regional environmental concerns, help avoid possible trade conflicts due to different environmental rules, and to promote effective enforcement of environmental laws.<sup>19</sup>

A question the CEC has been examining for the last eleven years is, whether NAFTA helps or hurts the environment. In order to answer this question, the CEC established a framework to gather and analyze data to assess the environmental effects of NAFTA, and by extension, trade liberalization in general.<sup>20</sup>

<sup>13</sup> See David Barkin, *The Social and Environmental Impacts of the Corporate Responsibility Movement since NAFTA*, 30 N.C. J. INT'L L. & COM. REG. 895, 907 (2005).

<sup>14</sup> See *id.*

<sup>15</sup> See *id.*

<sup>16</sup> Commission for Environmental Cooperation: Who We Are, [http://www.cec.org/who\\_we\\_are/index.cfm?varlan=english](http://www.cec.org/who_we_are/index.cfm?varlan=english) (last visited Mar. 31, 2006).

<sup>17</sup> See Stenzel, *supra* note 10, at 423.

<sup>18</sup> See Richard H. Steinberg, *Trade Environment Negotiations in the EU, NAFTA, and the WTO: Regional Trajectories of Rule Development*, 91 AM. J. INT'L L. 231, 247 (1997).

<sup>19</sup> Commission for Environmental Cooperation: Who We Are/Secretariat, [http://www.cec.org/who\\_we\\_are/secretariat/index.cfm?varlan=english](http://www.cec.org/who_we_are/secretariat/index.cfm?varlan=english) (last visited Mar. 31, 2006).

<sup>20</sup> COMM'N ENV'TL COOPERATION, ANALYTIC FRAMEWORK FOR ASSESSING THE ENVIRONMENTAL EFFECTS OF NAFTA, available at [http://www.cec.org/programs\\_projects/trade\\_environ\\_econ/pdfs/frmwrk-e.pdf](http://www.cec.org/programs_projects/trade_environ_econ/pdfs/frmwrk-e.pdf) (1999).

The framework set forth six hypotheses to be tested. The hypotheses are as follows:

- Does NAFTA intensify competitive pressures, leading to a regulatory/migratory “race-to-the bottom,” and/or pollution havens?
- Does NAFTA lead to an upward movement of environmental standards and regulations toward a common regional norm through corporate practices and government policies?
- Does NAFTA lead to upward regulatory convergence, supported by state and trilateral and international cooperation?
- Does NAFTA reinforce existing patterns of comparative advantage and specialization to the benefit of efficiency, or concentrate activities in areas with inadequate infrastructure and institutional capacity?
- Does NAFTA promote a form of economic growth whereby industrial modernization and the increased use of efficient, environmentally friendly, and traditional methods can co-exist (the so-called Kuznet curve)?
- Does NAFTA serve to increase the use of environmentally superior products, or displace domestic or traditional or cultural production and favor sectors and products with lower tariffs and greater environmental stress?<sup>21</sup>

The CEC has hosted a series of symposia to examine these hypotheses by applying them to specific sectors and geographic areas. Each symposium called for papers and an independent committee reviewed the proposals and decided which papers to support. The papers the committee supported were independently written by scholars and research institutes throughout North America. The first symposium was jointly sponsored by CEC and the World Bank in 2000. The symposium addressed topics ranging from NAFTA’s effects on fisheries, forestry and freshwater, to trade in hazardous waste, transportation and services.<sup>22</sup> The second symposium was co-sponsored by the United Nations Environment Programme in 2003 and focused on agriculture and energy.<sup>23</sup> At the two symposia, twenty-

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<sup>21</sup> *Id.* at vii.

<sup>22</sup> See North American Commission for Environmental Cooperation: First North American Symposium on Understanding the Linkages Between Trade and Environment, [http://www.cec.org/symposium/index\\_2000.cfm?varlan=english](http://www.cec.org/symposium/index_2000.cfm?varlan=english) (last visited Mar. 31, 2006) [hereinafter *Linkages Between Trade and Environment*].

<sup>23</sup> See North American Commission for Environmental Cooperation: Trade & Environment in the Americas, <http://www.cec.org/symposium/2003/papers.cfm?>

seven different papers were presented.<sup>24</sup> Thirteen addressed issues in all three countries.<sup>25</sup> Five papers compared Mexico to Canada or the United States.<sup>26</sup> Five were specific to Mexico, and one involved the United States and Canada.<sup>27</sup>

At the end of November 2005, the CEC hosted its third symposium. It focused on the impact of investment and economic growth on the environment. Eleven selected papers were presented on topics ranging from the maquiladora industry in Mexico to Chapter 11 arbitrations in NAFTA.

The CEC's approach has been unique by bringing together, for the first time, experts from various sectors of government, academia, non-governmental organizations and industry to analyze empirical evidence and conduct an open, transparent, and independent discussion on environmental effects across North America.

What lessons can be learned from these different papers? One observation is that pollution havens in North America are not widespread, although environmental and social impacts from free trade have occurred at the local and sectarian level. Moreover, pollution havens may happen in specific areas, but there is no widespread pattern of this occurring.

As an example of the pollution haven hypothesis, I will discuss hazardous waste treatment in Ontario and Quebec.

About four years ago in Canada, it was front-page news that the country was a "dumping ground" for hazardous waste from the United States.<sup>28</sup> "Throughout the 1990s, both Quebec and Ontario had gradually been loosening provincial waste regulations to help their local businesses in an expanding market-

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varlan=english (last visited Mar. 31, 2006) [hereinafter *Trade & Environment in the Americas*].

<sup>24</sup> See *Linkages Between Trade and Environment*, *supra* note 22; see also *Trade & Environment in the Americas*, *supra* note 23.

<sup>25</sup> See *id.*

<sup>26</sup> See *id.*

<sup>27</sup> See *id.*

<sup>28</sup> See Alan Findlay, *Ontario A Toxic Wasteland*, OTTAWA SUN, Oct. 2, 2001, at 10; *Canada Dumping Ground for U.S. Hazardous Waste: Environment Canada Report*, CANADIAN PRESS NEWSWIRE, June 25, 2001; Deborah Churchill, *U.S. Waste Bound for City; Hamilton Takes Hazardous Material*, HAMILTON SPECTATOR, June 19, 2001, at A09.

place.”<sup>29</sup> This occurred at a time when “hazardous waste regulations in the U.S. were growing more restrictive.”<sup>30</sup> Not surprisingly, over a couple of years, the waste trade from the United States to Québec and Ontario “went up by nearly 400 percent from 1994 to 1999.”<sup>31</sup>

At least one Canadian facility advertised in the United States saying that it was cheaper to dispose of waste in Canada because Canada did not have strict liability for generators and it lacked pre-treatment requirements; requirements that hazardous waste be treated before being dumped into landfills.<sup>32</sup> The strict liability laws in the United States make businesses responsible for ensuring that its waste is disposed of properly.<sup>33</sup> One cannot simply hand the waste off to a transporter or a disposal facility and assume they will properly dispose of it.<sup>34</sup> If the transporter or disposal facility does not properly dispose of the waste, the original owner of the waste is still held legally responsible.<sup>35</sup> In contrast, by exporting waste to Canada, a United States company would have no legal responsibility to ensure that the waste was disposed of properly.<sup>36</sup>

Suddenly it was front-page news that Canada was a dumping ground for U.S. waste.<sup>37</sup> Politically, that did not play very well. As a result of this negative publicity, there was a strong movement within Ontario and Quebec to strengthen their hazardous waste treatment standards.<sup>38</sup> Since 1999, hazardous waste imports from the United States into Canada have steadily declined<sup>39</sup> for a number of reasons, including that it is more expensive now with the Canadian dollar strengthening vis-à-vis the United States dollar. However, the organization Environ-

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<sup>29</sup> John Whalen, *Borderline Hazards; Controlling the Toxic Waste Trade*, NEWSL. N. AM. COMM'N FOR ENVTL. COOPERATION, Spring 2002, available at <http://www.cec.org/trio/stories/index.cfm?ed=7&id=89&varlan=english>.

<sup>30</sup> *Id.*

<sup>31</sup> *Id.*

<sup>32</sup> *See id.*

<sup>33</sup> *See* Comprehensive Environmental Response, Compensation, and Liability Act, 42 U.S.C. § 9607.

<sup>34</sup> *See id.*

<sup>35</sup> *See id.*

<sup>36</sup> *See* Whalen, *supra* note 29.

<sup>37</sup> *See* Findlay, *supra* note 28, at 10.

<sup>38</sup> *See* Whalen, *supra* note 29.

<sup>39</sup> *See* Environment Canada, *Imports of Hazardous Wastes Continue to Decline*, Sept. 20, 2004, [http://www.ec.gc.ca/press/2004/040920\\_n\\_e.htm](http://www.ec.gc.ca/press/2004/040920_n_e.htm).

ment Canada states that a “contributing factor in this downward trend is believed to be a move towards harmonization with American guidelines for the landfilling of hazardous wastes, which includes pre-treatment requirements of hazardous waste.”<sup>40</sup>

The environmental impact of the changes in U.S.-Mexico corn trade under NAFTA also raises a number of interesting issues regarding the six hypotheses set forth by the CEC. Significant changes have occurred in the corn trade as a result of NAFTA.<sup>41</sup> “U.S. exports to Mexico rose from 3.1 million metric tons in 1994 to 5.2 million tons in 2000.”<sup>42</sup> In 1994, U.S. imports accounted for 14% of Mexican corn consumption.<sup>43</sup> By 2000, they accounted for 24%.<sup>44</sup> The importance of corn in Mexico cannot be measured in statistics only. Mexico is the birthplace of maize,<sup>45</sup> and a tremendous variety of genetically diverse corn exists throughout Mexico.<sup>46</sup> Mexicans consume the second highest amount of corn per capita in the world.<sup>47</sup> Politically, culturally and socially corn is extremely important in Mexico.<sup>48</sup>

When NAFTA came into effect, many Mexicans were concerned that more efficient and heavily subsidized U.S. producers would undermine and undersell local indigenous farmers in Mexico.<sup>49</sup> NAFTA supporters felt that economic liberalization and free trade would bring out an important reallocation of

<sup>40</sup> Environment Canada, *Hazardous Waste Management in Canada; 2003 Statistics*, [http://www.ec.gc.ca/press/2004/040920\\_b\\_e.htm](http://www.ec.gc.ca/press/2004/040920_b_e.htm) (last visited Apr. 11, 2006).

<sup>41</sup> See Scott Bury, *Maize Farmers Unhappy with NAFTA's Price*, NEWSL. N. AM. COMM'N FOR ENVTL. COOPERATION, Winter 2004, available at <http://www.ccc.org/trio/stories/index.cfm?ed=12&ID=143&varlan=english>.

<sup>42</sup> Frank Ackerman, Timothy A. Wise, Kevin Gallagher, Luke Ney & Regina Flores, *Free Trade, Corn, and the Environment: Environmental Impacts of US - Mexico Corn Trade Under NAFTA 2* (Global Dev. & Env't Inst., Working Paper No. 03-06, 2003) [hereinafter *Ackerman*], available at <http://ase.tufts.edu/gdae/Pubs/wp/03-06-NAFTACorn.PDF>.

<sup>43</sup> See *id.*

<sup>44</sup> See *id.*

<sup>45</sup> See *id.* See also, COMMISSION FOR ENVTL. COOPERATION, MAIZE AND BIODIVERSITY, THE EFFECTS OF TRANSGENIC MAIZE IN MEXICO, available at [http://www.ccc.org/files/PDF/Maize-and-Biodiversity\\_en.pdf](http://www.ccc.org/files/PDF/Maize-and-Biodiversity_en.pdf).

<sup>46</sup> See Ackerman, *supra* note 42, at 3.

<sup>47</sup> *Id.*

<sup>48</sup> See generally COMMISSION FOR ENVTL. COOPERATION, *supra* note 45.

<sup>49</sup> See generally Michael Arndt, *Free Trade: Mexico's Side Farmers See No Great, New Bounty*, CHI. TRIB., May 2, 1993, at C1.



land, labor and capital in Mexico, improving the efficiency of its agricultural sector and moving displaced producers into economic sectors with higher productivity.<sup>50</sup> Larger farming operations, they felt, could lead to improvements in soil management, reduced pressures on marginal lands, and a cut back in deforestation.<sup>51</sup>

So what have been the environmental consequences? The overall balance sheet reflecting environmental consequences is extremely complicated. Several studies have highlighted a number of environmental issues.<sup>52</sup> One concern raised is the loss of genetic variability of corn as small-scale operations in Mexico are marginalized and become unproductive under NAFTA.<sup>53</sup> Another is the overuse of irrigation and pesticides in some of the modernized corn production practices that are replacing traditional Mexican corn production methods.<sup>54</sup> As prices have fallen, many smaller farms, particularly in the south, have attempted to increase production and revenues by farming marginal lands and increasing deforestation.<sup>55</sup> This extremely complicated topic calls for more detailed research and points out that trade liberalization is one component of wider economic strategies employed by the two countries. In the United States, trade liberalization has occurred in the context of continued agricultural subsidies.<sup>56</sup> Trade liberalization in this area could perhaps improve the environment, but the

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<sup>50</sup> See Alejandro Nadal, *Corn in NAFTA Eight Years After: A Research Report Prepared for the North American Commission for Environmental Cooperation* 1, May 2002, available at [http://www.cec.org/files/pdf/ECONOMY/Corn-NAFTA\\_en.pdf](http://www.cec.org/files/pdf/ECONOMY/Corn-NAFTA_en.pdf).

<sup>51</sup> See *id.* at 2.

<sup>52</sup> See generally Greg Block, *Public Forum Sheds Light on Environmental Effects of Trade*, NEWSL. N. AM. COMM'N FOR ENVTL. COOPERATION, Winter 2000-2001, available at <http://www.cec.org/trio/stories/index.cfm?varlan=english&ed=2&ID=17>.

<sup>53</sup> See generally Ackerman, *supra* note 42, at 17-18.

<sup>54</sup> See Alejandro Nadal, *Maize in Mexico: Some Environmental Implications of the North American Free Trade Agreement*, 64, 134, available at [http://www.cec.org/pubs\\_info\\_resources/publications/pdfs/english/engmaize.pdf](http://www.cec.org/pubs_info_resources/publications/pdfs/english/engmaize.pdf) (last visited Apr. 2, 2006).

<sup>55</sup> See Bury, *supra* note 41.

<sup>56</sup> See generally Kathryn McConnell, *U.S. Agriculture Secretary to Push for End to Farm Subsidies*, USINFO, July 6, 2005, available at <http://usinfo.state.gov/ei/Archive/2005/Jul/07-946746.html>; Stephen Kaufman, *Bush Seeks End to Agricultural Subsidies by 2010*, USINFO, July 7, 2005, available at <http://usinfo.state.gov/ei/Archive/2005/Jul/07-403429.html>.

continued high agricultural subsidies in the United States distort the trade picture.

There are many issues associated with trade and NAFTA. I have touched on only a few of those highlighted in the CEC papers. Many issues discussed in these papers are local in nature. For example, one big issue near the U.S.-Mexico border is road and freight transport. Significant air pollution exists along the transportation corridors that cross the border.<sup>57</sup> If you have been to, for example, the Arizona-Sonora border, you can sometimes see trucks for miles and miles, bringing fruit and produce to the United States from Mexico. They often sit idle for hours and hours at customs crossings. In these areas, the link between NAFTA and environmental degradation is clear.

Another issue is how NAFTA relates to other international agreements, such as the Kyoto Protocol (Kyoto).<sup>58</sup> Canada and the United States are the world's largest trading partners. Canada signed Kyoto despite the United State's refusal to sign the agreement.<sup>59</sup> So what does this mean? Why would Canada impose what could amount to more stringent requirements on its industry, when its major trading partner might not do the same? This story is still unfolding. Extremely complex decision making processes fed into Canada's decision to sign on to Kyoto<sup>60</sup> and it remains to be seen whether Canada will actually implement Kyoto.<sup>61</sup>

What general conclusions would I draw from the CEC's effort to explore the relationship between trade and the environment in North America? An overall conclusion is that neither the dire environmental consequences nor the predicted improvements in the environment, through technological improvements and better policies and resources to protect the

<sup>57</sup> See *id.* at 13-14.

<sup>58</sup> Kyoto Protocol to the United Nations Framework Convention on Climate Change, Dec. 11, 1997, 37 I.L.M. 32 [hereinafter Kyoto Protocol].

<sup>59</sup> United Nations Framework Convention on Climate Change, *Kyoto Protocol Status of Ratification*, Feb. 28, 2006, available at [http://unfccc.int/files/essential\\_background/kyoto\\_protocol/application/pdf/kpstats.pdf](http://unfccc.int/files/essential_background/kyoto_protocol/application/pdf/kpstats.pdf).

<sup>60</sup> See Elisabeth DeMarco, Robert Routliffe & Heather Landymore, *Canadian Challenges in Implementing the Kyoto Protocol: A Cause for Harmonization*, 42 ALTA L. REV. 209, 210 (2004).

<sup>61</sup> See Robert Sheppard, *Canada Votes 2006*, CANADIAN BROADCASTING CORP., Jan. 18, 2006, available at [http://www.cbc.ca/canadavotes/realitycheck/goodbye\\_kyoto.html](http://www.cbc.ca/canadavotes/realitycheck/goodbye_kyoto.html).

environment, have been realized because of NAFTA. The general policy conclusion I would draw is that good governance, transparency, and disclosure of issues do make a difference. Countries need to actively manage relationships with regard to trade and the environment, to pay attention to the policy gaps across different jurisdictions, and to pay attention to the externalities and distortions that may exist in trade, be it through subsidies or through unilateral actions. There is a need to promote technology transfer and adoption, particularly by the developed world in the developing world, and to increase public-private partnerships. This is particularly important, I think, in developing countries, such as Mexico, which historically had a largely state controlled economy, but has been liberalized greatly over the last ten years. The idea of a public-private partnership is fairly new in that society, despite being something people may take for granted in the United States or Canada.